

DUKE UNIVERSITY PRESS SOCIOLOGICAL SERIES

Charles A. Ellwood and Howard E. Jensen
Consulting Editors

SOCIAL SCIENCE PRINCIPLES
IN THE LIGHT OF
SCIENTIFIC METHOD

SOCIAL SCIENCE PRINCIPLES

IN THE LIGHT OF

SCIENTIFIC METHOD

WITH PARTICULAR APPLICATION TO
MODERN ECONOMIC THOUGHT

BY

JOSEPH MAYER, Ph.D., LL.D.

Visiting Professor of History and Political Science
Wheaton College

Formerly Professor of Economics and Sociology
Tufts College and Graduate School



DUKE UNIVERSITY PRESS
DURHAM, NORTH CAROLINA

COPYRIGHT, 1941, BY DUKE UNIVERSITY PRESS

PRINTED IN THE UNITED STATES OF AMERICA
BY EDWARDS & BROUGHTON CO., RALEIGH, N. C.

TO

MY MOTHER

EDITORIAL NOTE

THE AUTHOR OF this work rightly states that traditionalists in the field of the social sciences will find the volume difficult to classify. For the wholly factitious nature of the barriers which divide the social sciences into compartmentalized and supposedly independent disciplines is never more clearly evident than when one attempts to deal with the fundamental methodological problems of any one of them. Thus, although the present treatise is a direct outgrowth of its author's "disturbing sense of bewilderment" over the confused state of economic value theory, he found that this problematic situation could only be defined through prolonged studies in all the related disciplines, and that it could only be clarified through the resolution of theoretical difficulties common to them all.

This work gives no support to the view that the deep divergences among social scientists which often destroy the practical effectiveness of their work can be resolved by more and better data. On the contrary, dominance of interest in factual data is a measure of immaturity in any science. Fact finding becomes significant only when observation is guided in the selection and ordering of facts by ideas employed as hypotheses. Scientific method thus presents a dual aspect, and in a matured science, such as physics, boldness of imagination and reasoning in the formulation of conceptual frames of reference is no less important than care in the observation and verification of data. For, as John Dewey has said, "No generalization can emerge as a warranted conclusion unless a generalization in the form of a hypothesis has previously exercised control of the operations of discriminative selection and (synthetic) ordering of material to form the facts of and for a problem."

Nor can a realistic and rigorous science of human relations be achieved by means of natural science methodology alone. All social behavior is, of course, conditioned by physical and biological factors, and extensive knowledge of these basic sciences is required for its understanding. But social behavior as such possesses a distinctive

quality, and all attempts to interpret it in strictly natural science terms have resulted in simplified and artificial schematizations from which most of the complicated factors of social life as it is lived and experienced have been eliminated. Such methods may be adequate to explain a *natural* society of bees or ants, but not a *cultural* society of men. For while the former is dominated by inherent organic needs which are explicable in physicochemical terms, the latter is characterized by acquired cultural wants, and "these cannot be understood except by methods which are competent to analyze such 'subjective' factors as ideas, emotions, volitions; traits, impulses, wishes, desires, motives; values and other ethical concepts."

But "the proof of the pudding is in the eating," and the validity of a scientific methodology is best demonstrated by the results attained in application of fundamental theoretical problems. Although this part of the work is devoted to value theory in the field of economics, much of the discussion is equally applicable to the other social sciences. For these are all sciences of culture, and it is precisely its nature as a value, as something to be used, desired, or avoided by human beings, that constitutes any datum of experience a cultural fact.

HOWARD E. JENSEN and
CHARLES A. ELLWOOD, *Duke University*.

PREFACE

CONFSSION IS SAID to be good for the soul. It is also said to be helpful at times to understanding, in which sense the paragraphs that follow may assist the teacher and the student who use the present volume.

Taussig's graduate seminar in economic theory at Harvard prior to the first World War (most brilliantly, frankly, and liberally conducted) was nevertheless a rather disconcerting adventure for the present writer. Coming to it with a rigorous training in mathematics and physical science, together with the usual quota of courses in the social studies, he came out of it with a rather disturbing sense of bewilderment. Something seemed radically wrong with the structure of political economy, for this appeared to square neither with the methodology of physical science nor with the common-sense facts of everyday bread-and-butter existence. Nor was the feeling of bafflement lessened with further graduate excursions into logic, philosophy, ethics, psychology, anthropology, sociology, political science, public law, and the history of institutions. For the writer, Giddings at Columbia brought these excursions into a profound and timely scientific focus for the whole of social study, but the World War and the skyrocket boom of the twenties seemed even farther removed from any vestige of classical dialecticism.

The sense of puzzlement regarding social science fundamentals became still stronger when the author engaged in practical sociological and economic research for the Bureau of Social Hygiene and the National Industrial Conference Board during the early twenties. The effect was twofold: first, a determination to write an introduction to social study in the light of the achievements of the sciences (a task subsequently completed in the publication of *The Seven Seals of Science* in 1927; revised edition, 1937); second, an urge to find out what was wrong with political economy. The urge was nurtured and furthered through years of teaching graduate and undergraduate students what were called the principles of economics,

PREFACE

sociology, and business; and, finally, Parts II and III of the present volume were completed.

No one interested in constructive advance, however, could be satisfied with the iconoclastic conclusions that emerged. And so publication was deferred, although several colleagues suggested putting the material into print in the early thirties "to clear away the under-brush." Finally, a digest of these parts was presented in a series of lectures and discussions before the Cowles Seminar in Colorado Springs and subjected to searching criticism by able economists and statisticians (American and foreign) who were present. The digest of Parts II and III was then rewritten and published, under the title "Pseudo-Scientific Economic Doctrine," in *Philosophy of Science*, July and October, 1936.

In the meantime, a more constructive basis for general social study was being provided in the work of eminent students of generic value in terms of modern psychology and philosophy, and social science methodology itself witnessed notable advances. The result was a widening of scope for the inquiry and the development of Parts I and IV on Scientific Method and Social Study and on Broader Value Concepts. Digests of these parts were likewise subsequently published, under the titles "Social Science Methodology" and "Broader Value Concepts in Economics," in the *Journal of Social Philosophy*, July, 1936, and April, 1940.

At the same time, important investigations in anthropology, business cycles, and the income and wealth of the American people made it possible realistically to trace economic fundamentals both historically and contemporaneously. Critical attacks upon such studies and upon classical theory itself also provided an opportunity to present up-to-date demonstration exercises to give point to the preceding analysis and to cast into bold relief certain of the outstanding problems of modern times. Thus Parts V and VI were added to round out the whole and to make the broader exploratory study fairly complete. The five chapters of Part VI, XXIX through XXXIII, dealing with income and wealth and with Keynes's *General Theory of Employment, Interest, and Money*, formed the basis for additional lectures and discussions by the writer before the Cowles Seminar and elsewhere (both in the United States and in a number of European coun-

tries), and these have recently been subjected to further criticism by specialists in the fields concerned before being put into final form. The concluding chapter was completed after the author's participation in round-table discussions at the recent Tenth Anniversary Celebration of the Dedication of the University of Chicago Social Science Research Building.

The whole of the book has in fact benefited by numerous suggestions by competent scholars both in seminar discussion and otherwise. During the sixteen years that the work has been in process, the writer has (in addition to the digests of Parts I through IV already mentioned) published a number of articles bearing on various portions of the material. These have appeared in the *American Journal of Sociology*, *Econometrica*, *Journal of Social Philosophy*, *Philosophy of Science*, *Philosophical Review*, *Scientific Monthly*, and *Social Science*, and are specifically referred to in the text or in the footnotes. Many helpful suggestions and comments have been received by the author as a result of these articles, as well as through direct discussion and a critical reading of the text itself by competent authorities. Grateful acknowledgment is here made for this helpful scholarly assistance; also to the original publishers of the articles for permission to use portions of them here and there in the present volume, to other publishers who have kindly consented to the use of quotations from various sources, and to the Social Science Research Council for a two-year grant-in-aid to bring the work to completion.

Among the critical comments on the work through which the author has benefited, some have naturally been in the nature of a further defense of the classical and neoclassical positions. Certain comments and questions have also had to do with the aim of the book and the organization of its various parts, to which a sufficient answer is probably contained in preceding paragraphs and in the concluding chapter. At the same time it may be helpful to add a few words here on what the work does *not* purport to be.

The present volume is not just another text either on the principles of sociology or on the principles of economics. The traditionalist in either field will doubtless find it difficult to classify. But for teachers and students in both fields who have been perplexed or dissatisfied with orthodox dialecticism and have been searching for a modern

basis for developing social science principles, the book may well serve as a guide in unraveling the more difficult tangles still found in ordinary works on principles. Nor does the book provide a comprehensive history of either social or economic theory with sharp differentiation between the many special schools that have arisen from time to time and that exist today, although in conjunction with standard texts covering such subjects it may again serve to guide teacher and student to a more satisfactory evaluation than has heretofore been possible.

Among the numerous references for further study contained in the book, the following will prove helpful for classroom work: Part I: Stuart A. Rice (ed.), *Methods in Social Science* (Chicago, 1931); J. Michael and M. J. Adler, *Crime, Law, and Social Science* (New York, 1933); C. A. Ellwood, *Methods in Sociology* (Durham, N. C., 1933); C. A. Ellwood, *History of Social Philosophy* (New York, 1938); Parts II and III: references cited in Chapter XXI; Part IV: Charles W. McFarlane, *Value and Distribution* (Philadelphia, 1899); Ralph B. Perry, *General Theory of Value* (New York, 1926); John Laird, *The Idea of Value* (Cambridge, England, 1929); Parts V and VI: recent studies of Income, Wealth, and Economic Progress by the National Bureau of Economic Research, New York, the Brookings Institution, Washington, D. C., and the Twentieth Century Fund, New York. The following should be specially mentioned here: Brookings Institution, six volumes on Income and Economic Progress, Washington, D. C., 1934-1940; Robert R. Doane, *Measurement of American Wealth* (New York, 1933); John M. Keynes, *General Theory of Employment, Interest, and Money* (New York, 1936).

It is an honor to have this work appear as the second of a series of volumes in which the pioneer achievements of Lester F. Ward is the first. With the point of view of Ward, the present writer and the following pages are in general accord. Ward's emphasis upon the importance for social study of psychological factors, of "artificial" human achievements, and of the possibility through deliberate human action of molding society ever closer to the heart's desire, expresses also the underlying thesis of the present volume. There are those who will disagree with this thesis. But there are others, in

whose breasts the desire for a better world springs anew each dawn,
to whom the work may have significance.

It is hoped that the wide perspective of the book, drawing materials
from several related disciplines, will be of assistance to teachers and
students in the social studies in general and in economic theory in
particular.

JOSEPH MAYER.

CONTENTS

PART I SCIENTIFIC METHOD AND SOCIAL STUDY

CHAPTER		PAGE
I	MISAPPREHENSION REGARDING SCIENCE AND SOCIAL STUDY.....	3
	Sec. 1. Science and Scientific Method.....	3
	Sec. 2. Affiliations between the Sciences and Related Fields of Knowledge.....	8
	Sec. 3. Are Students of Society Incapable of Doing Scientific Work?.....	12
	Sec. 4. Misconceptions Regarding the Possibility of Organizing a Science of Society.....	15
II.	NATURAL-SCIENCE AND CULTURAL POINTS OF VIEW..	20
	Sec. 5. Tendencies in Natural-Science Schools of Social Thought.....	21
	Sec. 6. Opposing Tendencies in Cultural Schools ...	22
	Sec. 7. Objective versus Subjective Methodology...	23
	Sec. 8. Essential Contributions of Opposing Schools	29
	Sec. 9. The Natural versus the Artificial in Culture	30
III.	THE TECHNIQUES, BASIC CONCEPTS, AND PRECONCEPTIONS OF SCIENCE AND THEIR RELATION TO SOCIAL STUDY.....	33
	Sec. 10. Methodological Considerations Exhibited in the Development of the Physical and Biological Sciences.....	34
	Sec. 11. Application to Social Study.....	37
IV.	NATURAL-SCIENCE AND MATHEMATICAL TECHNIQUES IN SOCIAL STUDY	39
	Sec. 12. Relationship of Various Social Fields to the Recognized Sciences.....	40
	Sec. 13. Biopsychological Fundamentals and Techniques.....	42

Sec. 14. "Genetic" Approach to Social Study.....	44
Sec. 15. Biogeological Approaches.....	48
Sec. 16. Mathematico-Statistical Methodology.....	50
V. HISTORICAL AND RELATED CRITERIA IN SOCIAL STUDY	57
Sec. 17. The Methods of the Historian.....	57
Sec. 18. Combined Use of Scientific and Historical Techniques.....	60
VI. SPECIAL SOCIAL SCIENCE CONCEPTS AND PROCEDURES	66
Sec. 19. Social Causation and Law.....	66
Sec. 20. Precise Meanings for Science and Basic Con- cepts: Social Work, Evidential Techniques, Politics.....	71
Sec. 21. Social Preconceptions: Economic Utility and Value.....	76
Sec. 22. Summary and Conclusion Regarding Social Science Methodology.....	82

PART II CLASSICAL COST AND UTILITY THEORY

VII. PSEUDOSCIENTIFIC METHOD IN ECONOMICS.....	87
Sec. 23. A Seemirg Impasse in Economic Value Theory.....	87
Sec. 24. The Truth and Error in the Alternative-Use Doctrine.....	91
A. The Might-Have-Been Method of Meas- urement.....	94
B. The "Equation" of Cost-Utility-Price- Value.....	96
Sec. 25. Other Elements of Pseudo Science in Cost and Utility Theory.....	97
VIII. IMPORTANT CONCEPTS IN ECONOMIC THEORY.....	102
Sec. 26. Value and Utility.....	102
Sec. 27. Price.....	105
Sec. 28. Cost.....	106
IX. NATURE OF THE CLASSICAL COST DOCTRINE OF PRICE DETERMINATION: CERTAIN INHERENT FALLACIES..	108
Sec. 29. Early and Rude Society: Embodied and Com- manded Labor.....	110

Sec. 30. The Ricardian Cost Doctrine.....	115
Sec. 31. The Alternative Dogma in the Making.....	120
X. RISE AND DECLINE OF COST THEORY.....	124
Sec. 32. Developments in Classical Cost Doctrine after 1823.....	124
Sec. 33. Conditions Incident to Rise and Decline of Cost Theory.....	127
XI. AUSTRIAN CRITICISM OF COST THEORY.....	132
Sec. 34. Macvane's Analysis of Cost Elements.....	132
Sec. 35. Several Austrian Objections.....	134
Sec. 36. Patten's Appraisal of Cost Theory: Summary of Austrian Criticism.....	138
Sec. 37. Classical Confusion of Money Expense with Real Cost.....	142
XII. PRESENT STATUS OF COST THEORY.....	144
Sec. 38. Continuance of Pseudoscientific Reasoning..	144
Sec. 39. A More Constructive Point of View.....	149
Sec. 40. Epitome of Cost Argument and of Objections to It.....	151
XIII. CONTEMPORARY UTILITY THEORY.....	155
Sec. 41. Utility Still a Vague and Ambiguous Concept	155
Sec. 42. The Main Contentions of the Utility School	156
Sec. 43. Hypothesis of Generally Operating Diminish- ing Utility.....	159
Sec. 44. The Marginal Concept.....	162
Sec. 45. Utility Curves and Demand Curves.....	164
XIV. UTILITY AND PRICE DETERMINATION.....	170
Sec. 46. Measurement in Terms of Proportionality: Davenport.....	171
Sec. 47. The Question of Pecuniary Choice.....	177
Sec. 48. Free Goods and Economic Goods.....	181
Sec. 49. Natural and Artificial Contributions to Utility.....	182
Sec. 50. Summary of Criticism of Main Utility As- sumptions.....	184

**PART III SUPPOSITIONS UNDERLYING COST AND
UTILITY THEORY**

XV. FREE COMPETITION AND HOMOGENEITY OF UNITS....	189
Sec. 51. Obstructions to Free Competition from Points of View of Demand and Supply.....	191
Sec. 52. Lack of Homogeneity and Commensurability in Utility and Disutility	192
XVI. NORMALISTIC, HEDONISTIC, AND RATIONALISTIC AS- SUMPTIONS: VEBLEN'S CRITICISM.....	197
Sec. 53. Clark's System of Distributive Acquisition	197
Sec. 54. Views of Primitive, Natural and Normal, Statics and Dynamics.....	198
Sec. 55. Cumulative Change versus Hedonistic Equil- ibration.....	200
Sec. 56. Mechanical Views of Capital.....	200
Sec. 57. Dogma of Specific Productivity.....	201
Sec. 58. Consumer's Surplus and Monopoly Gains...	202
Sec. 59. A Right and Beautiful Order of Nature.....	205
Sec. 60. Veblen's Later Appraisal of Utility-Disutility Theory: Institutional Economics and Pecuni- ary Concepts.....	206
XVII. NORMALISTIC, HEDONISTIC, AND RATIONALISTIC AS- SUMPTIONS: MITCHELL'S AND DOWNEY'S ANALYSES 210	
Sec. 61. Non-Euclidean and Mechanical Self-Interest Theories.....	210
Sec. 62. Eclecticism and Pecuniary Logic.....	212
Sec. 63. Evolutionary Theory.....	216
Sec. 64. Futility of Marginalism as an Explanation of Price.....	217
XVIII. THE DOGMA OF UNFAILING MUTUAL GAIN IN EX- CHANGE.....	221
Sec. 65. The Meaning of the Dogma.....	221
Sec. 66. The Superficial Character of the Dogma....	223
Sec. 67. The Nature of the Alleged "Gain" in the Act of Exchange.....	224

Sec. 68. Swapping or Barter Not Generally Involved in Modern Exchange.....	226
Sec. 69. Summary of the Argument.....	228
Sec. 70. The Dogma Now an Anachronism.....	229
XIX. PSEUDO ANALOGIES: MECHANISTIC AND ORGANISMIC FALLACIES.....	231
Sec. 71. Mechanistic Analogies.....	231
Sec. 72. Sociological Criticism by Sorokin.....	233
Sec. 73. Economic Applications.....	235
Sec. 74. Organismic Analogies.....	236
Sec. 75. General Organismic Criticism.....	237
XX. PSEUDO ANALOGIES: ECONOMIC ORGANISMIC SYSTEMS 240	
Sec. 76. J. B. Clark's Use of Organicism.....	240
Sec. 77. Applications to Utility-Disutility Analysis: Seligman.....	242
Sec. 78. Objections to Organismic Social Value Con- cept: Schumpeter.....	243
Sec. 79. Unseen Hand, Natural Law, and Laissez Faire Misconceptions: Davenport.....	246
Sec. 79A. Social Relations and Values Realistically Conceived.....	250
XXI. SUMMARY AND CONCLUSIONS REGARDING COST AND UTILITY THEORY.....	254
Sec. 80. The Rationale of the Classical Point of View	254
Sec. 81. Its Shortcomings Epitomized.....	255
Sec. 82. A More Modern Point of View.....	262
Sec. 83. Can Neoclassicism Survive?.....	264

PART IV BROADER VALUE CONCEPTS

XXII. CONTINUING CONFUSION IN ECONOMIC VALUE THEORY 271	
Sec. 84. Exchange Ratios and Rates, Absolute and Relative Values.....	272
Sec. 85. Shortcomings of Such Concepts: Failure to Arrive at Fundamentals.....	274
Sec. 86. Perry's Analysis of Social Value.....	276
XXIII. VALUE FUNDAMENTALS: PERRY.....	280

CONTENTS

Sec. 87. Roles of Interest and Judgment in Generic Value: Four Basic Elements.....	280
Sec. 88. Perry's Philosophical and Psychological Approach.....	281
Sec. 89. Limitations of This Approach.....	283
Sec. 90. Biological and Psychological Analysis of Interest.....	284
Sec. 91. Modes and Varieties of Interest.....	287
Sec. 92. Relation between Cognition and Interest..	289
Sec. 93. Complexes and Integrations of Interest.....	291
Sec. 94. Genesis and Mutations of Interests.....	294
Sec. 95. Outstanding Features of Perry's Analysis...	297
XXIV. COMPARATIVE VALUE.....	298
Sec. 96. A Quantitative Approach: Duration, Intensity, Inclusiveness.....	298
Sec. 97. Qualitative Considerations: Unique Differences in Kind.....	301
Sec. 98. Kinds of Quantities or Magnitudes: Extension, Intension, Distension.....	304
Sec. 99. Critical Estimate of Comparative Value Quantitatively and Qualitatively Considered	308
XXV. CORRECTNESS, PREFERENCE, AND BEHAVIOR.	311
Sec. 100. Correctness.....	311
Sec. 101. Preference.....	312
Sec. 102. Comparative Value and Human Behavior..	315
Sec. 103. The Qualitative Characteristics of Interests and Values.....	317
XXVI. ECONOMIC AND RELATED ASPECTS OF VALUE.....	322
Sec. 104. Economic and Moral Aspects.....	323
Sec. 105. Novel and Routine Aspects.....	327
Sec. 106. Value-in-Exchange and Price.....	331
Sec. 107. Human Interest versus Institutional Aspects of Value.....	333
Sec. 108. Present Highly Institutionalized Market and Price Aspects of Value.....	335

**PART V HISTORICAL AND CONTEMPORARY
ECONOMIC FUNDAMENTALS**

XXVII. THE DEVELOPMENT OF ECONOMIC INSTITUTIONS	341
Sec. 109. Historic Transfers of Goods and Services— Forced and Free	341
Sec. 110. The Development of Systems of Exchange	347
Sec. 111. The Medieval Economy and Retail Market	352
Sec. 112. The Medieval "Just Price"	359
Sec. 113. Medievalism, Scientific Advance, and Modern Business	365
Sec. 114. Changes in Economic Thought and Policy	370
Sec. 115. Summary and Conclusions as Bearing upon Economic Theory	377
CXVIII. BUSINESS CYCLES AND MODERN BUSINESS ACTIVITY	383
Sec. 116. Business-Cycle Theory	384
Sec. 117. Modern Business Conditions and Inter- relations	387
Sec. 118. Recent Historical Studies of Business Cycles	390
Sec. 119. Recent Statistical Studies	392
XXIX. THE INCOME AND WEALTH OF THE AMERICAN PEOPLE	396
Sec. 120. American Money Income and Its Use	396
Sec. 121. The American Money Mechanism	404
Sec. 122. Good and Bad Use of Savings	407
Sec. 123. American Economic Wealth	414
Sec. 124. America's Wealth-Producing Capacity	421
Sec. 125. Corporate Wealth and Ownership	423
Sec. 126. Major Economic Controls in the United States	429

**PART VI CRITICAL DEMONSTRATIONS AND
CONCLUSIONS**

XXX. INCOME DISTRIBUTION AND ECONOMIC PROGRESS	439
Sec. 127. America's Capacity to Produce	441
Sec. 128. America's Tendency to Save	446
Sec. 129. America's Tendency to Expand Capital	450
Sec. 130. America's Path to Progress	458

CONTENTS

Sec. 131. Scientific Method and the Brookings Inquiry	462
XXXI. FULL EMPLOYMENT AND EASY MONEY.....	464
Sec. 132. A Focusing of Current Interest.....	465
Sec. 133. Keynes's Central Argument and Its Re- ception.....	468
XXXII. FULL EMPLOYMENT AND EASY MONEY (<i>Continued</i>)...	482
Sec. 134. Psychological Factors.....	482
Sec. 135. Equilibrium Economics.....	488
Sec. 136. Wage-Units and Quantity of Employment.	497
Sec. 137. Income, Saving, and Investment.....	500
XXXIII. FULL EMPLOYMENT AND EASY MONEY (<i>Concluded</i>)...	506
Sec. 138. Capital and Its Marginal Efficiency.....	506
Sec. 139. Money, Liquidity, and the Rate of Interest	510
Sec. 140. The Circulating Medium, Loan and Invest- ment Funds, and Easy Money.....	520
Sec. 141. Concluding Comments.....	531
XXXIV. PRICES AND VALUES.....	539
Sec. 142. Market-Price Determination.....	539
Sec. 143. Broader Price Considerations.....	542
Sec. 144. Medieval and Modern Fairness, Justice, and Effectiveness in Price.....	545
Sec. 145. Values, Utilities, and Costs.....	548
Sec. 146. Market and Progress Phases of Value.....	550
Sec. 147. Toward Scientific Economic Thought.....	551
XXXV. IN CONCLUSION.....	555
Sec. 148. Current Tendencies.....	556
Sec. 149. Modern Psychology and Social Study.....	560
Sec. 150. Social Science in the Making.....	562
INDEX.....	565

PART I

SCIENTIFIC METHOD AND SOCIAL STUDY

CHAPTER I

MISAPPREHENSIONS REGARDING SCIENCE AND SOCIAL STUDY

METHODS AND TECHNIQUES for dealing with social phenomena in a scientific way are still of a highly experimental character, although much has been done in recent years to lay the groundwork for giving them more definitive form. Part of the preliminary problem has had to do with developing adequate social-science concepts, with differentiating between the scientific and the pseudoscientific in social research, and with clarifying other basic categories. The following chapters examine these questions in some detail.

Among the phases of the preliminary problem which it seems desirable to take up in the present chapter are misapprehensions regarding the nature of science and scientific method, the affiliations between the sciences and related bodies of knowledge, the competence of students of society for scientific work, and the possibility of organizing a science of society.

SECTION 1. SCIENCE AND SCIENTIFIC METHOD

Regarding the concept "science," repeated efforts have been made in recent years to give it a meaning which will adequately serve the purposes of the recognized sciences and which at the same time will tend neither to exclude the social studies nor to place artificial limits upon their proper development. If these efforts have not yet led to completely satisfactory results, they have at least served to render the main issues increasingly clear.

In what is probably the most ambitious of these recent efforts, it is forcefully contended that the social studies, such as criminology, sociology, law, psychology, economics, are not yet sciences and that to avoid misunderstanding the term "science" should be most rigorously construed and applied.¹ With this contention we may agree,

¹ Cf. Jerome Michael and Mortimer J. Adler, *Crime, Law, and Social Science* (New York, 1933), p. 56 n.

even though, as in the instance just cited, the attempt at strict appraisal continues to fall somewhat short of its goal.

Despite the deliberate and painstaking effort in recent literature to provide an accurate and comprehensive meaning for "science," inconsistency and looseness of thought nevertheless creep in. The term is employed categorically in some instances to designate empirical knowledge exclusively, on other occasions to cover both empirical and rational systems of thought, and in still other connections as applying to social "sciences" which, it is elsewhere repeatedly insisted, contain nothing at all scientific. Economic theory is certainly a "rational system of thought," and sociology is also a "science" in this sense, although neither of these fields may conceivably contain much that is strictly empirical except of the "raw" variety. Furthermore, the statement that "sciences can be found in all degrees of organization, ranging from the purely empirical science to the purely rational science" can readily be thought to suggest that rational "science" is more "scientific" than empirical "science."²

This ambiguity in the use of the word "science" is not entirely remediable. There is an inherent difficulty here which is as a rule not brought to the surface. In one breath it may be maintained that the difference between an empirical science and a rational discipline is "perfectly clear." In the next breath it is admitted that a given "science" may have both empirical and rational elements. In fact, it would appear that, no matter how "empirical" a science may be, as, for example, physics or chemistry, rational as well as empirical elements must be contained in it. Rationalism is the essence of theory and analysis. Without this there could be no empirical science; there would be only "raw empiricism."³ It should also be noted that "raw" rationalism may be just as much a sign of scientific immaturity as "raw" empiricism and that a definition of science which stresses one of these aspects more than the other cannot make the matter entirely clear. At the same time, part of the aforementioned ambiguity might be avoided by limiting the use of the word "science" to such fields of knowledge as physics, chemistry, and biology, and by employing elsewhere other concepts, such as "discipline" when designating a rational system, and "study" when refer-

² *Ibid.*, pp. 55, 60-63, 90, 390-391.

³ *Ibid.*, pp. 62, 69-71.

ring to a social field. For the purpose of the account that follows, the term "science" will be limited chiefly to the generally recognized sciences, that is, physics, chemistry, astronomy, geology, and biology, but it will be regarded as having a wide enough base to include psychology and sociology as these become scientifically organized.

A broad sketch of certain general characteristics of science thus defined may now be attempted: On the empirical side, a science must go beyond mere information or description based upon individual observation or common-sense knowledge alone; the observations must be accurate and reliable, they must be tested repeatedly by competent observers, must cover broad and significant categories of events rather than particular things or mere aggregates of particular things, must be supplemented by experimental, statistical, or other special observational techniques, and must be directed by an adequate "theory or analysis." On the rational side, a science, in its propositions or generalizations, must transcend mere opinion or common belief; its propositions must have a generality which is broader than the empirical evidence from which they are drawn; they must nevertheless rest upon such evidence and be validated by it, must possess the formal character of expressing a relation between variables, and must be members of "compendent sets of propositions." An empirical science may be distinguished from a purely rational discipline as follows: The one rests upon an observational as opposed to a rational base, whereas the other is built upon a set of arbitrary definitions, axioms, and postulates; the propositions of the one are compendent but not systematic, while the other builds upon its rational base a dependent group of theorems which are thoroughly systematized; the empirical hypotheses of the one are validated by a process of induction, that is, by reference to further observational evidence; the rational theorems of the other are proved by deductive logic solely. To inductive proof in empirical science the adjective "probable" applies; to the purely deductive proof of a rational discipline the adjective "true" is appropriate.⁴

In the analysis by Michael and Adler, to which reference has been made, there is presented an excellent outline of the general methodology of modern science. At the same time this outline is somewhat

⁴ Cf., also, chap. vi, sec. 20, below.

vitated by a one-sided emphasis and by an omission which lead here and there to questionable conclusions. Both the outline and its deficiencies are further illustrative of recent tendencies.

Only the minimum requirement of scientific method is here dealt with by these authors, namely: "that it shall employ techniques of observation and measurement designed to obtain data in terms of which a general proposition can be inductively established as possessing a definite degree of probability. This requirement is a complicated one; it involves criteria of relevancy; it involves the intricacies of inductive proof and the subtleties of a calculus of probabilities." Elsewhere the prerequisite is stated thus: "The proper co-operation of theoretical analysis, observation, and inference is the essential trait of empirical scientific method. To restrict the use of the term scientific to such research as manifests the coöperation of these three processes is merely to hold that no research is properly called scientific unless it succeed in determining the probability of a scientific proposition." And again it is asserted that the "basic, indispensable trait of empirical scientific method" is an "interplay of analysis and investigation."⁵

All three of these quotations, taken from different parts of the exposition by Michael and Adler, emphasize the essential duality of scientific method, a duality of observation and theory. Nor is there any suggestion here that the rational phase is more important than the empirical phase or vice versa. This would seem to be as it should be. Nevertheless, in a great deal of modern discussion on scientific method (including other sections of the work just referred to), a radically different point of view is exhibited, the implication being that the rational phase is the more important or the more immediate or the antecedent phase. The following further illustration from Michael and Adler, which might be multiplied, will serve to indicate this one-sided emphasis: "A science cannot come into existence in a given field until a theory or an analysis has been constructed. Prior to the existence of a theory it is impossible for scientific research to be done." This pseudo truth is then "validated" by a curious line of reasoning. Exploratory investigations are pointed to as possible preliminaries to scientific work, their usefulness depending upon "the

⁵ Michael and Adler, *op. cit.*, pp. 63-64, 67, 71.

suggestiveness of the descriptive knowledge" which results. Out of such preliminary knowledge, it is implied, a theory can be constructed by "a rational process which transforms the materials it uses." In short, it would seem that, although "exploratory research cannot by itself create a science," it may nevertheless through a pure process of rationalization, and without the use of any additional observations whatsoever (we are led to infer), form the basis of a proper theory or analysis, which may in turn be used for scientifically directed research. Such an inferential conclusion is quite erroneous and does not result where the aforementioned one-sided emphasis with respect to scientific method is avoided.⁶

This leads to the important omission (a very common one) in recent discussions of science and scientific method. It is just as futile as the chicken-versus-egg argument to insist that either a proper theory or a proper observational technique must come *first* in scientific research. Both theory and observation are necessarily "raw" and "exploratory" in the embryonic stage of the scientific development of any body of knowledge. The history of science demonstrates this situation time and again. It is the growth factor which is usually omitted in this connection. To say that "a science must first exist before it can grow" misses the essential point entirely, which is, rather, that bodies of knowledge composed originally of individual observations and common-sense impressions may nevertheless develop into sciences, provided the "raw empiricism" of their beginnings gives way in time to a proper observational technique, and provided also that the raw presumptions of their infancy mature ultimately into proper theories and analyses.

There are other important requirements to be met before a given field of knowledge may be thought of as a science. At this point, however, we are wholly concerned with minimal considerations. General scientific method must, in brief, be viewed in terms of a duality of observation and theory. A one-sided emphasis, whether upon observation alone or upon theory alone, inevitably leads to confusion and misunderstanding.⁷

⁶ *Ibid.*, p. 65.

⁷ For recent references with respect to general scientific method, see: Frederick Barry, *The Scientific Habit of Thought* (New York, 1927); Percy W. Bridgman, *The*

**SECTION 2. AFFILIATIONS BETWEEN THE SCIENCES AND
RELATED FIELDS OF KNOWLEDGE**

Infelicities of definition in attempts to relate the sciences to one another and to adjacent fields of knowledge, especially on such grounds as "dependence" and "independence," are likewise characteristic of much of recent discussion. In fact, any attempted distinction between independent and dependent empirical sciences appears for the most part meaningless. Although the subject matter of every recognized empirical science consists in a "set of variables which *as a set* [my italics] are not found in any other science," nevertheless some of these variables are almost always borrowed from other sciences. These two facts render the sciences both "independent" and "dependent" at the same time.⁸

The mathematical disciplines and the recognized empirical sciences show, from one point of view, a definite "structural" and "genetic" relationship which rather conclusively demonstrates their general dependence. Before the basic variables of the sciences of biology

Logic of Modern Physics (New York, 1927); Morris R. Cohen, "The Social Sciences and the Natural Sciences," in *The Social Sciences and Their Interrelations*, ed. W. F. Ogburn and A. Goldenweiser (New York, 1927); Morris R. Cohen and Ernest Nagel, *An Introduction to Logic and Scientific Method* (New York, 1934); A. d'Abro, *The Evolution of Scientific Thought from Newton to Einstein* (New York, 1927); Lawrence Hyde, *The Learned Knife: An Essay on Science and Human Values* (London, 1928); Gilbert N. Lewis, *The Anatomy of Science* (New Haven, 1926); Joseph Mayer, *The Seven Seals of Science* (rev. ed.; New York, 1937); Jacques Rueff, *From the Physical to the Social Sciences* (Baltimore, 1929); Arthur N. Whitehead, *Science and the Modern World* (New York, 1925); Abraham Wolf, *Essentials of Scientific Method* (2d ed.; London, 1928).

For earlier references, see also: Charles R. Darwin, *More Letters*, ed. Francis Darwin (2 vols.; New York, 1903), I, 195; Thomas H. Huxley, *Method and Results* (New York, 1896), p. 65; William James, *Pragmatism* (New York, 1907), pp. 56-57; Edwin R. Lankester, *The Advancement of Science* (New York, 1890), p. 9; George H. Lewes, *Aristotle* (London, 1864), pp. 59-61; Oliver J. Lodge, *Reason and Belief* (New York, 1910), pp. 140-141; Augustus de Morgan, *A Budget of Paradoxes* (London, 1872), p. 55; John H. Muirhead, *Philosophy and Life* (London, 1902), pp. 235-237; Bertrand Russell, Preface to Henri Poincaré, *Science and Method*, tr. Maitland (London, 1914), pp. 6-7; George Shann, *The Criterion of Scientific Truth* (London, 1902); John B. Stallo, *The Concepts and Theories of Modern Physics* (New York, 1882), p. 8; John Venn, *The Principles of Empirical or Inductive Logic* (New York, 1889), p. 399.

⁸ Cf. Michael and Adler, *op. cit.*, pp. 77-78; and Florian Znaniecki, *The Method of Sociology* (New York, 1934), together with a review of the latter by the present writer, *Annals of the American Academy of Political and Social Science*, Jan., 1935, pp. 284-285.

and geology could be clearly analyzed and defined, certain fundamentals in chemistry had to be established. Before the primary categories of chemistry could be understood, certain principles in physics had to be made clear. Before the basic variables of physics could be known, certain principles of mathematics and astronomy had to be worked out. Before astronomy could mature into an empirical science, the mathematical disciplines had to be elaborated and quickened at the touchstone of empirical reality. The "structural" and "genetic" relationship between the sciences, and their interdependence, have been more fully analyzed by the present writer in other connections, so that only brief additional reference to the "structural" phase need be made here.⁹

From the "structural" point of view, and with a caution against carrying mechanical analogies too far, scientific knowledge may be likened in part to a building several stories high, mathematics constituting the foundation, physics the first floor, chemistry the second, modern astronomy the third, and geology, biology, and psychology the fourth, fifth, and sixth floors, respectively. Not until the nineteenth century were the lower stories complete enough for the superstructure to be put into place. Basic construction is still in process on the upper floors; and when the whole edifice is sufficiently secure, one might add in anticipation, a sociological "penthouse," containing economics, law, government, and other special compartments, may cap the whole.

This analogy should be regarded as touching the interrelation of the sciences at one point only. It must not be thought to imply too much completion in the foundation and "lower" floors before the "upper" stories can be put into place. The sciences are interdependent, "upper" sciences contributing often to further developments of "lower" ones. The only significance of the structural analogy is to illustrate what appears to be an outstanding fact, namely, that certain fundamentals in underlying disciplines and sciences must become established before the next disciplines in order can be scientifically organized. Around 1830, for example, there was a vast amount of geological material on hand, but it was left for Lyell and his contem-

⁹ Cf. Mayer, *The Seven Seals of Science*, pp. 224, 134, 165, 265, 179, 312, 329, 105-106, 335, 354, 345-346, 383; also, sec. 10, below.

poraries, using improved physical and chemical methods of analysis, to formulate those basic variables, the use of which, after the first third of the century, made it possible to organize geology into a veritable science. A like situation occurred in biology around 1860. An even greater amount of biological material had been gathered from the ancient Greek period down to that time; but, until the cell and protoplasm had been clearly discerned, and until the significance of the germ layers and their relation to bodily structure had been made clear (both these discoveries requiring the wide application of physical and chemical techniques), it was hardly possible to say that biology had become in any true sense a science. Similarly it would seem that, despite the interest which eminent thinkers and common people alike have taken from early times to the present day in the gathering of impressions about mental phenomena, psychology could not find its basic variables and probably has not yet found them because the fundamental facts of biology upon which it depends (namely, facts about the sense organs and the glandular and nervous systems, especially about the spinal cord and the brain) did not begin to be clearly analyzed until after the middle of the last century. Extensive physical, chemical, and biological techniques would seem to be essential to the clear understanding of these processes, and so far as the brain itself is concerned, there is still much to be done before its detailed relation to mental phenomena becomes sufficiently clear.

Turning to sociology or social study and regarding economics as a part of it, we find, of course, that in this field an enormous amount of material has also been gathered, beginning at least as far back as the gathering of data with respect to mental and biological phenomena, so that it is for one thing hardly accurate to say that the youthfulness of social study as a scientific discipline is due to lack of time. From before the days of Socrates and Aristotle there have been unceasing efforts to collect and understand social data. Without wishing for a moment to seem to belittle or underestimate the importance of statistical and other modern methods for more properly accumulating and evaluating these data, the present writer nevertheless believes that all such endeavor, important as it is, is in the nature of a preliminary taxonomic procedure, much as the Linnean classification in

biology was preliminary to the more adequate classifications which later developed in the light of the evolutionary hypothesis. This belief is based upon two assumptions, frankly hypothetical and subject to verification or disproof: first, that a reasonably accurate understanding of biological and psychological potentialities and desires is needed before the norm or norms toward which man may build his society can be satisfactorily formulated; and, second, that society, unlike other basic factors around which sciences have been built, is itself so largely man-made that it is in good part within man's power to reshape, rebuild, revise, or change by deliberate effort its institutional framework. If these two hypotheses are justified, and the writer is fully aware that they are not held by a number of sociologists who are inclined to feel that society is just as "natural" a product as is a biological organism, it would seem ultimately necessary that the potentialities and desires of human beings, and the ethical ideals around which man may build his society, must be reasonably explicit before any really scientific measures of social change or social control can be formulated. By this conclusion it is not meant to imply that there is nothing constructive in society as at present organized, but merely to suggest that, without scientifically devised ethical norms and a sufficient knowledge of human nature, it is hardly possible to make any satisfactory demarcation between the "good" and the "bad," the essentially social and antisocial, the inherently normal and the abnormal in society.¹⁰ The general relevance of these observations about the difficulty of fashioning sociology and special social studies such as economics into sciences, would seem fairly clear. The ground may not even now be sufficiently ready for the scientific maturation of the social studies, though this situation should not be taken to suggest that no constructive social and economic research can be undertaken at the present time.

Two important considerations not ordinarily recognized become illuminated by a "structural" and "genetic" picture of the relationship between the sciences and adjacent fields of knowledge. One consideration is that during early periods in the growth of the sciences so-called "raw" empiricism and "raw" analysis were, as already

¹⁰ For the significance of the phrase "scientifically devised ethical norms," see Mayer *The Seven Seals of Science*, pp. 400-401, 420-421; cf., also, sec. 79A, below.

suggested, the only possible procedures, since the basic concepts upon which they later built their empirical structures had not yet been provided. During these preliminary periods it was impossible to distinguish mere opinion and common-sense description and analysis from anything more "rigorous." Only as antecedent sciences or disciplines furnished the necessary fundamentals, could better observational techniques and more rational analysis come. The other consideration, also previously touched upon, is that the basic physiological and genetic concepts upon which it would seem that psychology must ultimately rear its empirical structure were almost entirely lacking until after the middle of the last century (and some of them have apparently not yet been provided). Furthermore, if social study depends intimately upon psychology, there is certainly no occasion to grow impatient about immediate scientific results in sociology and economics.

The sciences are, in short, essentially interdependent, constituting a "structural" and "genetic" whole and containing immature as well as mature elements, in the light of which fact the embryonic "sciences" of psychology and sociology, and their special subsidiary branches such as economics, may be best defined and understood. Psychology, the study of mental phenomena, seems to be built upon biology, as previously indicated. Similarly it would appear that sociology, the study of human relations and institutions, must in large part find its elementary concepts in human biology and human psychology, both of which disciplines are themselves relatively recent additions to the family of the sciences.¹¹

SECTION 3. ARE STUDENTS OF SOCIETY INCAPABLE OF DOING SCIENTIFIC WORK?

The statement is sometimes made that social psychologists, sociologists, economists, and other students of social phenomena are in-

¹¹ For the student who wishes more complete definitions of psychology and sociology, reference is made to the writings of Wundt, James, Pierre Janet, Ribot, Titchener, Köhler, McDougall, among the psychologists, and to the writings of Comte, Spencer, Ward, Sumner, Giddings, Small, Durkheim, Simmel, among the sociologists; also to the allusions to scope, status, and concepts of psychology and sociology in *Methods in Social Science*, ed. Stuart A. Rice (Chicago, 1931). William James defined psychology as the "science of mental life, both of its phenomena and of their conditions." For

capable of doing scientific work and that the only hope in these fields is to draft specialists from mathematics and the physical and biological sciences to apply scientific method to social study. Such an assertion indicates little understanding of the real difficulties inherent in the problem it purports to clarify.¹²

Workers in mathematical, physical, and biological fields have already for a considerable period of time given attention to psychology and social study. Some of them have assisted in bringing these disciplines nearer to scientific maturity, as witness the achievements of early nineteenth-century physicists and physiologists (Weber, Fechner, Mueller, Helmholtz, *et al.*) who transformed mental philosophy into the rudiments of psychology. But many others who have transferred their allegiance from mathematics and empirical science to social study would appear to have done almost as much harm as good in the false analogies and hasty generalizations which they brought with them. The net result has been that theories, applicable enough in the empirical sciences from which they are taken but largely invalid as applied to society, have been introduced into social study in abundance: mechanistic analogies (through such men as Descartes, Hobbes, Weigel, Leibnitz, Herbart, Fourier, Solvay, Ostwald), environmental analogies (through such men as Cuvier, Baer, Lamarck, Ritter, Metchnikoff, Ratzel, Huntington), organismic analogies (through such men as Pascal, Lessing, Comte, Lilienfeld, Hertwig, Worms), anthroporacial analogies (through such men as Galton, Gobineau, Pearson, Lapouge, Ammon), evolutionary analogies (through such men as Darwin, Spencer, Novikov, Vaccaro, Tarde, Marx, Ferri).¹³ Containing considerable surface plausibility, being

several contrasted definitions of sociology see Albion W. Small, *General Sociology* (Chicago, 1905), pp. 23 ff.

¹² Cf. John Candler Carr, *The Application of Scientific Methods to Sociology* (Boston, 1934), p. 28, together with a review of the book by the present writer, *Annals*, March, 1935, pp. 219-220; also, Michael and Adler, *op. cit.*, pp. 390-405.

¹³ Cf. Pitirim A. Sorokin, *Contemporary Sociological Theories* (New York, 1928). His review and criticism of mechanistic schools of social thought (*ibid.*, pp. 3-62) may be profitably examined in connection with a new pseudo school of social geometry that seems now to be developing in the attempted application of the vector and field theories, of Einstein and other prominent mathematicians and physicists, to social behavior: see John F. Brown, *The Mathematical Conceptions Underlying the Theory of Psychological and Social Fields* (Ann Arbor, 1935); Francis S. Chapin, *Contemporary*

fathered often by a recognized scholar in an established science, and introducing technical terms, the complete significance of which could not be readily comprehended by the majority of students of society, these analogies were at first accepted as manna from heaven; at present, in some quarters, the tendency is to go to the opposite extreme and to regard them for the most part as toadstools.

This new appraisal, however, is hardly any more constructive than the old, for the basic disciplines and sciences may and do assist social study in important ways: mathematics, physics, and chemistry in supplying principles of mass action and statistical and other rigorous techniques appropriate to social study; astronomy and geology in providing a knowledge of the limitations and potentialities of natural environment; biology and psychology in suggesting the parts played by heredity and intelligence in social organization. Man is, after all, part of the animal kingdom and subject not only to the general laws of biology and psychology and to the limitations of astronomical and geological environment applying to the whole of organic existence, but also to the laws of the sciences and disciplines upon which these depend, namely, to the laws of chemistry, physics, and mathematics. Nevertheless, when specialists in these fields have turned to social stu~~stu~~, they have not usually been content to point out wherein the prin~~stu~~ of their specialties apply to man and to his relations with other us~~en~~, but they have been prone to see social phenomena through the ey~~us~~ of their specialties alone and have thus founded schools of social thought based exclusively upon their sciences.

The chief shortcoming of all such pseudo schools of sociology is their stress upon factors which man has in common with the rest of the universe. In this inverted emphasis, the human and social factors have usually been completely overlooked or have been so distorted that the et result is even worse. While it is important to hold in mind that there are environmental, hereditary, and mental factors in social organization, it is of still greater importance to recognize that human society is much more than a combination of general en-

American Institutions (New York, 1935), chap. xvi; Philip Franklin, "What is Topology?" *Philosophy of Science*, Jan., 1935, pp. 39-47; Nicolas Rashevsky, "Outline of a Mathematical Theory of Human Relations," *Philosophy of Science*, Oct., 1935, pp. 413-430; Louis L. Thurstone, *The Vectors of Mind* (Chicago, 1935); also, his article under the same title in the *Psychological Review*, Jan., 1934, pp. 1-32.

vironment, heredity, and intelligence, since other animals also have these factors at their disposal or are conditioned by them and yet no other animal has developed anything resembling human society. What specialists from other fields usually overlook is that the primary concern of sociology is human society. They fail, as a rule, to make any analysis whatsoever of those variables which are unique in human relations, those factors and accomplishments which set man apart from the rest of material and animal existence. What is relevant in these pseudo schools of social thought should not be neglected, but what is gross exaggeration, hasty generalization, false analogy, or raw analysis should be discarded, in order that social theory may proceed without further incumbrance than it is bound to have because the disciplines upon which it depends most, psychology and biology, still have essential facts to contribute before its own basic variables become clear.¹⁴

It is a gratuitous slander to assert that psychologists and students of social phenomena are on the whole incapable of doing scientific work. Some of them doubtless are incompetent, because they have had no training in empirical science; others who have had such training are blinded by hasty generalization and are equally impotent; but there are still others, trained both in the empirical sciences and in the social studies, who are endeavoring against odds to formulate the basic variables of psychology and sociology, and of such special disciplines as economics. Impatience and ill-considered accusation will retard rather than hasten the fundamentally necessary work of these pioneers.¹⁵

SECTION 4. MISCONCEPTIONS REGARDING THE POSSIBILITY OF ORGANIZING A SCIENCE OF SOCIETY

Five general allegations bearing upon the possibility of organizing a science of society may now be briefly examined.

¹⁴ Cf. chaps. xix and xx, below, for the further employment of false analogies in the social field.

¹⁵ For the application of scientific method to social study, besides the works already cited, see: Arthur F. Bentley, *Behavior, Knowledge, Fact* (Bloomington, Ind., 1935); Charles A. Ellwood, *Methods in Sociology* (Durham, N. C., 1933); Felix Kaufmann, *Methodenlehre der Soziokissenschaften* (Vienna, 1936); George A. Lundberg and Willard Waller, "Quantitative Methods in Social Psychology," *American Sociological*

First is the contention that social phenomena are more complex, intangible, and relative to time and place than are physical and biological phenomena, in fact, so complex that scientific formulation is hopeless. As the present writer sees the matter, there are two points of view implied here which it is well to keep separated. On the one hand, the present seeming complexity of social phenomena may be due largely to our ignorance concerning their fundamental concepts. A much greater simplicity and uniformity may be discerned after these concepts have been more clearly defined. The basic variables of one science are possibly just about as simple or complex, tangible or intangible, as the basic variables of any other science. On the other hand, having in mind the suggested hypothesis of a hierarchy of scientific knowledge, we can perceive that there is a sense in which the data of observation (as distinguished from basic variables as such) are not all of like simplicity or complexity. In this sense biological phenomena are more complex than chemical or physical phenomena, and sociological phenomena are more complex than psychological or biological phenomena. Not only do the laws of the physical and biological sciences apply to man and to a society of men, as already indicated, but the laws of psychology and sociology also apply. Social phenomena would thus seem to be more complex and elusive than any less comprehensive type. Or, to use a former figure of speech, the "structural" relation between the sciences would appear to render the variables of the "upper" sciences more difficult to formulate than those of the "lower" ones. In addition, it appears that time and place do not condition all kinds of phenomena to a like degree—physical events least of all, biopsychological events next, and social events apparently most of all.¹⁶

Second is the contention that, since laboratory experimentation is inapplicable to social phenomena, no empirical science of society is possible, to which the following quotation will serve as a partial reply: "In proportion as research is incapable of performing laboratory experiments in the narrowest sense of that term, its observa-

Review, Feb., 1936, pp. 38-60; Wesley C. Mitchell, *Business Cycles* (New York, 1928), p. 59; Vilfredo Pareto, *The Mind and Society* (4 vols.; New York, 1935); Rice (ed.), *Methods in Social Science*, pp. 676-680.

¹⁶ Cf. Michael and Adler, *op. cit.*, pp. 72-77; also, distinction between "artificial" and "natural" phenomena (sec. 9, below).

tional data must be developed by elaborate statistical and mathematical calculations. It is sufficient here for us to emphasize the unquestionable fact that the basic trait of empirical scientific method, namely, its use of empirical evidence to determine the probability of generalizations, is not at all dependent upon opportunities for laboratory experimentation." It might also be added that in the past quarter of a century substantial progress has been made in developing other adequate techniques for the empirical observation and assembling of social data and that plans are at present under way for the more satisfactory preservation of social-science source materials.¹⁷

A third contention is that social data are not "metrical" and that empirical handling is therefore impossible. Here the answer would seem to be along the following lines: the word "metrical" should not be confined to processes of simple counting, weighing, or linear measurement; measurement may be very complex and inferential as in the "weighing" of the electron; statistical and similar techniques are just as much "metrical" as any simpler form of measurement; and no matter how complex or inferential the process may become, so long as it proves adequate to the problems imposed by social and economic research, it will nevertheless constitute all the "metrical" criterion necessary for the development of social science.

A fourth contention is that psychology, sociology, and economics have had as much time as any of the recognized sciences to develop adequate techniques of observation and analysis, the fact that they have not done so being cited as part of the evidence of the incompetence of workers in these fields for scientific accomplishment. The most charitable response to the first part of this contention is that those who offer it have simply not informed themselves as to the history of the development of the sciences.¹⁸ In response to the second part of the contention, it is sufficient to repeat that the social fields have drawn workers in abundance from the mathematical disciplines and from the physical and biological sciences, where they had already

¹⁷ Cf. Michael and Adler, *op. cit.*, pp. 73-74; also, *Methods in Social Science*, ed. Rice, a casebook compiled under the direction of the Committee on Scientific Method in the Social Sciences of the Social Science Research Council; chaps. iii, iv, v, vi, below; and reports of the Joint Committee on Materials for Research of the Social Science Research Council and the American Council of Learned Societies.

¹⁸ Cf. Mayer, *The Seven Seals of Science*, and n. 9, above.

demonstrated their ability to do scientific work, so that, if they have been unable to show substantial results in the social field, it is more logical to infer that the difficulties lie in the complexity and scientific immaturity of the subject matter rather than in any inherent incompetence in the men themselves. At the same time, it may be repeated that there are still too many specialists in the social field who have no scientific background, who approach their work with misconceptions and fixed prejudices which they apparently seek merely to rationalize, and that, so long as they remain prominent in university instruction and research, the scientifically trained and unbiased workers in the field will be rendered incapable of making substantial progress except in the perfection of the basic psychological, statistical, and other social-science techniques which the "wishful thinking" type of worker cannot understand anyhow and therefore finds no way to dominate.

A fifth contention points to an essential difference between "social science" on the one hand and physical and biological science on the other. But those who make this difference hinge upon an alleged distinction between "inexact" and "exact" methodology (as many of them do) would appear to miss the issue completely, for social "science" might become ever so exact and still be "essentially different" in some basic respect from the rest of the sciences. This very important contention will be referred to again in the next chapter, although a few brief reminders here may suggest the extent to which, if true, it must complicate the problem of turning social study into social science.

In nature are found what are apparently relatively fixed "laws," using "laws" to designate the objective uniformities themselves rather than man's understanding or interpretation of those uniformities. In the various societies that man has been instrumental in fashioning, there is apparently as yet no evidence of such relative fixity or inevitability. This seeming difference between the whole group of natural sciences, on the one hand, and the social studies, on the other, may conceivably be resolved by assuming that a cosmic experimentation has been in process since primordial time, which has in part crystallized itself into set ways (we call them laws of nature) in the millions upon millions of years of its duration, so that in retrospect the results

of the process seem very much fixed; whereas alongside of this result is seen the experimentation of man, who, as part of the cosmic process and yet as a "wilful" element in it, has for only a few thousand years been endeavoring to fashion a society. His experimentation has by no means as yet crystallized itself into set ways. At present the social order may in general be said to be relatively undefined, and it would seem to lie largely within the power of man's intelligent direction to "determine" what the laws of society shall ultimately be. On the basis of some such assumption the seeming discontinuity between the "laws" of nature and the "laws" of society may be theoretically resolved, but, in any event, as matters stand at present, the indicated difference between the two broad groups of disciplines makes for an added complexity in the field of the social studies which should not be overlooked or underestimated.¹⁹

With respect to these five allegations as a whole, there is apparently no reason to regard them as indicative of the impossibility of doing scientific work in the social studies. They show, rather, the relative complexity of the subject matter to be dealt with and the immature condition in which such studies still find themselves.

¹⁹ Cf. sec. 19, below, for further analysis of social causation and law; also, T. Swann Harding, "All Science Is One," *American Journal of Sociology*, Jan., 1936, pp. 492-503.

It is to be noted that the preceding discussion has to do with *laws*, not with *environment*. Man has, of course, changed his physical environment considerably throughout historic time, but this is quite another matter from contending that he has thus succeeded in making any changes in the invariant natural sequences (the objective laws) of physics, astronomy, geology, and biology that govern natural phenomena. Cf. pp. 20, below.

CHAPTER II

NATURAL-SCIENCE AND CULTURAL POINTS OF VIEW

IF THERE IS AN essential difference, as suggested at the end of the preceding chapter, between the natural sciences on the one hand and the social studies on the other—in the sense that man has the power to change and has repeatedly changed existing social organizations, whereas he has no such power over natural phenomena—then the meaning of “social science” must, in this respect at least, differ substantially from that of natural science. Elsewhere the present writer has designated society as an “artificial creation,” much as an automobile or a steel mill is, that is to say, made by the artifice of man.¹ The “artificial” automobile or steel mill is of course fabricated in the light of the natural laws of physical science. Its construction would be impossible without a knowledge of these laws. There are also certain natural laws and tendencies in human nature and animal behavior which must serve as a foundation for any scientifically fabricated society, constructed on the basis of observation and verification on the one hand and of rigorous use of theory and analysis on the other. In short, despite any essential difference such as that suggested between natural and social science, the scientific method is apparently just as applicable in the one field as in the other. There is still much confusion on this score. But before pursuing further the significance of the distinction, artificial versus natural, it will be well to have before us more of what opposing schools of methodological thought in the social studies have to offer as a background with respect to it.

¹ Mayer, *The Seven Seals of Science*, pp. 424 ff. Cf., also, Lester F. Ward, *Dynamic Sociology* (New York, 1883), I, 71-81, 490-493; II, 103-106; *The Psychic Factors of Civilization* (Boston, 1893), pp. 286-287; *Applied Sociology* (Boston, 1906), pp. 11-12, *passim*. One need not agree with Ward’s view of teleology and psychology (which in his day were very crudely conceived) to appreciate the distinctions he drew between natural and artificial in the indicated references and elsewhere.

There are in fact quite a number of schools of social thought at the present time; but these for methodological purposes readily divide themselves into two groups, a group of natural-science schools and a group of cultural schools.²

SECTION 5. TENDENCIES IN NATURAL SCIENCE SCHOOLS OF SOCIAL THOUGHT

The natural-science schools themselves are of many varieties, reflecting for the most part the scientific vogue and the already mentioned advent in the social field of specialists from the mathematical disciplines and the physical and biological sciences.³ Where the rise of these schools implies a more rigorous application of scientific method to social phenomena, constructive advances may be anticipated, but where there is implied an attempted reduction of social to physicobiological elements, with the consequent neglect of the social elements themselves and a crass emphasis upon quantitative method to the exclusion of essential social factors that are apparently qualitative in nature, opposing cultural schools find legitimate ground for criticism. The important terms used by the natural-science group of schools are "natural," "quantitative," "objective," "behavior," and "sense impression," stressing, it will be noted, the observational and verificational side of scientific method rather than the rational and analytical side.

Extremists of this group tend to reduce "natural" to "physical," some of them (as Durkheim) speaking of social facts as "things." They likewise emphasize "objective" or external data to the exclusion of "subjective" or mental data, as feeling, belief, value. Quantitative verification is one of their chief objectives, anything qualitative and nonmathematical being regarded as falling outside the scientific purview. Sense impressions are spoken of as mere "excitations" in an effort to escape "subjective" implications. And human "behavior," from which "introspection" is rigidly excluded, seems to be reduced to physicochemical or at best to purely physiological terms. Organisms thus tend to become "ingenious mechanisms," that develop through unconditioned reflexes, conditioned reflexes,

² Cf. Ellwood, *Methods in Sociology*; Sorokin, *Contemporary Sociological Theories*.

³ Cf. Sorokin, *Contemporary Sociological Theories*, Introduction, chaps. i, iv, *passim*.

and habitual responses. On the social plane such responses constitute a "collective reflexology," to use Bechtereff's designation.⁴

Some sociologists of the natural-science schools will probably regard parts of the foregoing outline of extreme tendencies as exaggerations, built up by opposing schools from isolated references to lend more color to counter arguments. There is sufficient evidence, however, to demonstrate the widespread existence of the tendencies indicated.⁵

SECTION 6. OPPOSING TENDENCIES IN CULTURAL SCHOOLS

In reacting against extreme natural-science arguments, the cultural schools of social thought emphasize the other side of scientific method, the theoretical and analytical. To this extent they tend to restore a very important and proper balance in the application of scientific method to social study. But they likewise do much more. Some of them also go to extremes and often deny all validity to observational and testing methods in sociology and economics. It should be noted furthermore that many partisans among the cultural sociologists draw their scholarly sustenance from nonscientific disciplines (from theology, practical social work, history, and philosophy), that the very terms used by the schools they oppose are often anathema to them, and that to some extent they represent the "second generation" of sociologists, whereas extremists among the natural-science groups represent the "third."⁶ It is presumably the revolt of the latter against the former which has resulted in the present methodological conflict in the social studies, a conflict which at its best is instructively reminiscent of the Bacon-Descartes controversy of the early seventeenth century and of the Aristotle-Plato struggle of ancient times.⁷

Adherents to the cultural point of view insist that social phenomena are more amenable to philosophical than to natural-science methods, that introspection and "subjective" analysis must here continue to

⁴ Cf. Ellwood, *Methods in Sociology*, Introduction by Howard E. Jensen, and the first four chapters, espec. pp. 31-45.

⁵ *Ibid.*; also, Sorokin, *Contemporary Sociological Theories*.

⁶ Cf. Ellsworth Faris's review of Ellwood's *Methods in Sociology*, in *American Journal of Sociology*, March, 1934, pp. 686-689.

⁷ Cf. Mayer, *The Seven Seals of Science*, pp. 13-14, 31-33, 98-106, 201-209.

be of paramount importance, that social relations are externally observable to only a very slight extent, and that, in place of and in contrast to observational, experimental, and mensurative procedures, the chief methods of the social scientist must be imagination, psychological insight, and historical interpretation, with statistics, surveys, and case studies playing subsidiary roles.⁸

Along somewhat similar lines are their objections to behaviorism, namely: it sets up an extreme orthodoxy which enslaves rather than frees the mind with respect to scientific experimentation; it is inadequate and dogmatic in denying "the existential reality of the non-physical" and thus cannot deal with the more important aspects of culture; it uses a pedantic and meaningless jargon in place of a direct and clear terminology; it fails to reveal the true nature of the social process, that is, intercommunication of conscious and articulate experiences among human beings, and while it may be applicable below the human level, it is not adequate on it; although somewhat effective in the study of child behavior it cannot provide an understanding of adult human actions, which constitute the most important individual and social phenomena; and it does not begin to penetrate into the meaning of social institutions with their emphasis upon values and the valuation processes.⁹

SECTION 7. OBJECTIVE VERSUS SUBJECTIVE METHODOLOGY

The more moderate among proponents of natural-science methods in social study find little to criticize in such objections to extreme behaviorism as those just indicated, but with respect to the attempted subordination or replacement of observational and other "objective" methods, they tolerate no compromise.¹⁰

The term "objective" nevertheless continues to be ambiguous, not only in the writings of sociologists and economists, but also in those of physicists, biologists, and philosophers.¹¹ Where the term is used simply to designate the disinterested, strictly impartial search for

⁸ Cf. Ellwood, *Methods in Sociology*, chaps. ii and v; also, Morris R. Cohen, *Reason and Nature* (New York, 1931), pp. 333-368; Charles H. Cooley, *Life and the Student* (New York, 1927), pp. 150-158.

⁹ Cf. Ellwood, *Methods in Sociology*, chap. iv.

¹⁰ Cf. Faris, *op. cit.*, p. 689.

¹¹ Cf. Arthur O. Lovejoy, *The Revolt Against Dualism* (United States, 1930).

truth in social study as elsewhere, no one can legitimately find fault.¹² There are, however, certain logical, psychological, and philosophical implications which not only continue to create difficulties but, in the light of recent developments in physics, would seem to render the difficulties more profound today than at any previous time.

From this point of view, the quarrel between the natural-science and cultural groups is mainly over the relative significance of the "objective" and the "subjective," of "observation" and "introspection"; and, in so far as this is true, the quarrel is not easily settled. It may not be settled for years to come. It is precisely here that the present situation appears to be the revival of an old dispute, begun by Plato and Aristotle, renewed by Descartes and Bacon in the light of seventeenth-century physical science, and apparently now being opened again as a result of twentieth-century physical advance.

The old syllogistic logic settled the question too easily. Through it, nature came to be regarded as a pack of shuffled facts. All the scientist had to do was to go out, gather an armful, and then in his study arrange them neatly into their proper predetermined suits. But the logic of the scientific renaissance destroyed all that. Scientific method took on a "question and answer" character. The scientist now asks nature a question, which, if crude or raw, begets a crude or raw answer. If then he rephrases and improves his question, he gets a better answer. And so on. Facts (observation) can no longer be regarded as uncolored by the question asked (theory), nor is the scientific question uncolored by preceding facts. The "objective" and the "subjective" are thus much more closely related than had previously been perceived.¹³

Similar reasoning applies to the psychological approach. In talking of "excitations," certain extreme behaviorists are harking back to a day in the history of psychological development which is long since gone. There are no "pure" excitations or sensations, uncolored

¹² Cf. Ellwood, *Methods in Sociology*, pp. 28 ff.; also, Faris, *op. cit.*, p. 688.

¹³ Cf. Eric T. Bell, *The Search for Truth* (New York, 1923), chap. vii; Bridgman, *The Logic of Modern Physics*; Alfred Korzybski, *Science and Sanity* (New York, 1933); Clarence I. Lewis and Cooper H. Langford, *Symbolic Logic* (New York, 1932); Oliver L. Reiser, "Non-Aristotelian Logics," *The Monist*, Jan., 1935, pp. 100-117.

by introspective elements. Rigorous introspection should, in fact, be regarded as a refinement of cruder "objective" observation.¹⁴ The really important consideration here, for the psychologist and the student of society, is the problem of devising suitable techniques for testing and verifying introspective observation, a much more difficult problem than the simpler quantitative tests applied to ordinary "objective" observation.¹⁵

From the philosophical point of view, the problem remains one of psychophysical dualism of mind and matter or epistemological dualism of representative (or symbolic) perception or both, so admirably analyzed in Lovejoy's penetrating book, in which it is pointed out that the revolt of the past two centuries, exemplified in the rise of pragmatism, instrumentalism, objective relativism, and in such theories as Whitehead's and Russell's, has almost completely failed and that philosophy is face to face again with an age-old problem but in a new form because of recent advances in physical science.¹⁶ "Sub-

¹⁴ Mayer, *The Seven Seals of Science*, pp. 207-210. For further details regarding the significance and importance of introspective- or self-observation, see works of Edward B. Titchener; also, additional references given on pp. 718-719 of *Methods in Social Science*, ed. Rice. Certain "modern" behaviorists, who attempt to drag introspection through the window after it has been so roundly kicked out the front door, are now designating introspection as reflective or symbolic "behavior," adding that they see no objection to introspective- or self-observation so long as knowledge gained thereby is duly verified and checked by other self-observers—a point on which there has never been any actual dispute. The real question has had to do with the attempt to add "behaviorless" behavior of a reflective or symbolic sort to honest-to-goodness behavior and at the same time retain the dogmas of behaviorism intact. Under the expanded concept, an organism is apparently never "not behaving"; and so the "moderns," in their return to Wundt and his followers, seem not only to have taken the "ism" out of behaviorism (an avowed intention) but to have taken out "behavior" as well. Cf. John F. Markey, "Trends in Social Psychology," *Trends in American Sociology*, ed. Lundberg, Anderson, Bain, et al. (New York, 1929), pp. 135-148; John F. Dashiell, "A Physiological-Behavioristic Description of Thinking," *Psychological Review*, 1925, pp. 54-73; Karl S. Lashley, "The Behavioristic Interpretation of Consciousness," *Psychological Review*, 1923, pp. 237-272, 329-353; Albert P. Weiss, *A Theoretical Basis of Human Behavior* (Columbus, 1925), pp. 234 ff.

¹⁵ For the development of techniques applying to the precise study of the "higher mental processes," see the excellent analyses, by John E. Coover and Franklin Fearing, of the pioneer work of Hermann Ebbinghaus and of the Würzburg Laboratory, in *Methods in Social Science*, ed. Rice, pp. 707-728.

¹⁶ Lovejoy, *op. cit.*

jective" and "objective" now appear as the "inside" and "outside" of the same reality, each of which seems equally indispensable to the proper understanding of that reality.¹⁷

Observation lost a great deal of its seemingly absolute objective character after physical discoveries in sound and color forced the recognition of a differentiation between so-called "primary" and "secondary" qualities.¹⁸ Extension, form, and motion continued to be regarded as "objective," but color, sound, taste, and other sensory impressions took on decidedly "subjective" aspects. Since seeing, hearing, touching, tasting, or smelling *is* observing, it came to be appreciated that observation has subjective as well as objective characteristics and that the uncritical observation employed in the physical and biological sciences remains raw and crude unless or until corrected by what may legitimately be designated as more rigorous introspective observational techniques developed by psychological analysis.¹⁹

Despite these advances, however, the die-hards among the objectivists continued to hold fast to extension, form, and motion, as the primary and objective elements of the material universe—elements which, they held, are quantitatively measurable, absolutely invariable, and the basis of all science, uncolored by subjective considerations. Then came the revolutionary discoveries of the nineties bearing upon atomic structure and electronic behavior, with respect to which the relativity and quantum theories were later developed and as a result of which extension, form, and motion lost much of their "objective" aspects. Smoothness, compactness, impenetrability, became more seeming than real, and all our ideas of matter, energy, space, and time had to be recast in more "subjective" molds.²⁰

Finally, there was developed the so-called "principle of uncertainty," enunciated by Heisenberg in 1927, which, had it been put forth by a philosopher or a sociologist, would probably have seemed utterly fantastic. Developed to reconcile conflicting theories in modern physics (largely to explain the wave and particle aspects of electronic behavior), this new principle not only demonstrated the un-

¹⁷ Cf. Cooley, *Life and the Student*, p. 151; also, Mayer, *The Seven Seals of Science*, pp. 206, 386-387.

¹⁸ Mayer, *The Seven Seals of Science*, p. 203.

¹⁹ *Ibid.*, pp. 208-209.

²⁰ *Ibid.*, pp. 253-264.

certainty and subjective character of fundamental knowledge of the atomic universe but also indicated that such knowledge must always remain uncertain, inexact, probable, and statistical, because of inherent limitations in the observational process. For example, to "see" an electron requires light; but illuminating an electron gives it added characteristics; so that the very act of attempting to observe it in a given state makes the observation of that state uncertain or impossible. The electron thus appears to present itself in two aspects, one a "particle" and the other a "wave," both equally elusive. Observation offers no method for resolving or getting behind these appearances, and so physics must content itself with accepting conflicting illusions as the best it can probably achieve and as "equivalent," so far as any space-time description is concerned.²¹

Absolute objectivity has therefore virtually become a meaningless concept. If seventeenth-century physical advance tainted it with subjectivity and nineteenth-century developments destroyed its absoluteness and made all physical knowledge relative to the observer (including space, time, and cause), twentieth-century progress has gone even further and has indicated that the "object" of observation and the "subject" observer constantly interact, that observational knowledge has very definite limits making for uncertainty and illusion, and that scientific facts are "subjective" as well as "objective."

Such a conclusion does not mean that the distinction between the object and the subject has disappeared. Observation of the objective universe still remains the basis of all scientific knowledge. But it does mean that the development of observational techniques is probably only in its infancy, that subjective factors can no longer be naïvely disregarded, that quantitative measurement is doubtless the simplest and crudest of observational devices, and that the emphasis in psychology and the social studies must be more and more upon the

²¹ Cf. Robert B. Lindsay, "Some Philosophical Aspects of Recent Atomic Theory," *Scientific Monthly*, April, 1928, pp. 299-305; Werner Heisenberg, *The Physical Principles of the Quantum Theory* (Chicago, 1930); J. Rud Nielsen, "Philosophical Implications of Modern Physical Science," *Scientific Monthly*, June, 1931, pp. 546-555; Charles G. Darwin, "The Uncertainty Principle in Modern Physics," *Scientific Monthly*, May, 1932, pp. 387-396; Niels H. D. Bohr, *Atomic Theory and the Description of Nature* (New York, 1934); Selig Hecht, "The Uncertainty Principle and Human Behavior," *Harper's Magazine*, Jan., 1935, pp. 237-249; Erwin Schrödinger, *Science and the Human Temperament* (New York, 1935).

perfection of instruments, which will register, record, and classify qualitative distinctions, and upon devising tests and verification procedures for those intangible though very real elements in human nature which are pre-eminently mental and social.²²

Nor does the foregoing analysis imply any change in the character of scientific method, which remains observation and testing on the one hand and theory and analysis on the other. It is simply no longer possible to regard "objective" and "subjective" as synonymous respectively with these two methodological processes or with "impartial" and "biased" procedures. Both observation and theory should be as "objective" as possible in the general sense used at the beginning of this section; that is, they should be disinterested, impartial, detached. Both, however, contain "subjective" elements which are inherent though different in each.²³

It should be repeated that the scientific method of observation and theory apparently remains the same whether applied to the study of physical, mental, or "artificial" phenomena, whether to an investigation of the moon, a panic, or the kitchen clock. The young hopeful may take the clock apart and observe its elements ever so painstakingly, but if he has no adequate theory about its interrelations he will never find out what makes the wheels go round or in what its uniqueness as a whole consists. Whether society is physical,

²² Cf. chaps. xxiv and xxv, below.

²³ There is another meaning sometimes proposed for "objective," namely, that which would have the concept coincide with the "abstracting" operation in physical and biological science, by means of which "irrelevant" factors (such as the influence of the air on a falling body) are excluded in controlled experiments (as in a vacuum). But a controlled experiment does not take nature as the observer finds it, in all its pristine "objectivity." Experimental "abstraction" is a decidedly "subjective" operation, even though it is admittedly one of the most important refinements of scientific method in bringing to light the invariants of nature. See Luther L. Bernard, "The Objective Viewpoint in Sociology," *American Journal of Sociology*, Nov., 1919, pp. 298-325 (307). Attempts to substitute explicit-implicit for objective-subjective obviously solve none of the problems outlined in this section: see Floyd H. Allport and Dale A. Hartman, in *Methods in Social Science*, ed. Rice, pp. 308 ff., 345 ff. At the other extreme, all "dichotomies" have become anathema to some students of society; but the pulling of new "quantification" and "operational" shibboleths out of their hats (or possibly one should say out of their "symbolic mechanisms") can hardly be regarded as a methodological improvement: cf. Lundberg and Waller, "Quantitative Methods in Social Psychology," pp. 38-54; and A. Cornelius Benjamin, "Review of Bridgman's Logic of Modern Physics," *Journal of Philosophy*, Nov. 24, 1927, pp. 663-665.

mental, natural, or "artificial" does not change the approach to a scientific understanding of it. But, on the other hand, no attempted reduction of its intangible interrelations and values to physical or physiological terms, be their observation and quantitative appraisal ever so carefully carried out, will apparently bring us one whit nearer to the observation and testing of all-important cultural aspects which are thus omitted or to a more rigorous theoretical analysis of basic social and economic concepts.

SECTION 8. ESSENTIAL CONTRIBUTIONS OF OPPOSING SCHOOLS

We may now return to the schools of social thought already briefly reviewed and attempt to summarize their respective contributions to social-science methodology.²⁴

The natural-science groups emphasize the fundamental need for observation and verification in social study as in natural science. The cultural groups point to the importance of adequate theories and analyses here as elsewhere in science, and particularly to the need for dealing with distinctive mental and social facts rather than with physical, chemical, and biological material which belongs primarily to other sciences.

The natural-science groups emphasize the virtue of applying quantitative measurement to social study, of developing statistical and other mathematical techniques for presenting social facts in verifiable form. The cultural groups point to the primary need for developing methods of impartial evaluation of qualitative cultural factors involving ideals, values, and ethical considerations.

The natural-science groups emphasize the importance, for social analysis, of gathering data regarding behavioristic patterns of response found in adult man viewed from the "outside," in children, in primitive peoples, in the primates, and in other animals having gregarious habits or customs. The cultural groups aim to deal directly with adult human behavior from the "inside" and with cultural institutions as such, insisting that here are to be found the basic variables for a science of society and that these cannot be un-

* For recent data regarding the natural-science point of view, see *Trends in American Sociology*, ed. Lundberg, Bain, Anderson, *et al.* For the cultural point of view, see Ellwood, *Methods in Sociology*. Cf., also, *Methods in Social Science*, ed. Rice.

derstood except by methods which are competent to analyze such "subjective" factors as ideas, emotions, volitions; traits, impulses, wishes, desires, motives; values and other ethical concepts.

SECTION 9. THE NATURAL VERSUS THE ARTIFICIAL IN CULTURE

Culture is made up of diverse elements: material objects, such as tools, instruments, machines, and other physical products of the artifice of man; individual skills, techniques, crafts, trades, professions; institutions and customs, that is, the traditional ways and social conventions to which people conform.²⁵ Certain cultural elements are natural or merely divert natural forces to more effective human use. A great part of culture, however, is fabricated; it is artificial; it results from the artifice of man.

Among the major problems of social science seem to be those of determining: (1) in what respects culture is inherently natural and subject to almost no control by man; (2) to what extent it is natural but clearly divertible into channels in keeping with man's needs or desires; (3) to what extent it is artificial and thus completely changeable and controllable by man. In so far as society is an artificial creation, the problem of planned control becomes understandable. Otherwise it would be just as unthinkable to speak of such a possibility as it would be to talk of man's planning out new movements for the planets.

Neither the natural-science nor the cultural schools appear to appreciate sufficiently this distinction between the natural and the artificial in cultural relations, though the distinction seems to be implicit in otherwise inconsistent elements in their respective points of view.²⁶ Whatever is wholly natural is presumably inevitable, such

²⁵ Cf. Edward B. Tylor, *Primitive Culture* (2 vols.; London, 1871); Alexander A. Goldenweiser, "History, Psychology and Culture," *The Journal of Philosophy, Psychology, and Scientific Methods*, Oct., 1918, pp. 561-571, 589-607; Clark Wissler, *Man and Culture* (New York, 1923); Melville J. Herskovits and Malcolm M. Willey, "The Cultural Approach to Sociology," *American Journal of Sociology*, Sept., 1923, pp. 189-199; Malcolm M. Willey, "Society and Its Cultural Heritage," in *An Introduction to Sociology*, ed. Davis and Barnes (New York, 1927); Joseph Mayer, "Review of a Guide to Historical Literature," *Isis*, April, 1932, pp. 459 ff.

²⁶ Cf. William F. Ogburn, *Social Change* (New York, 1922); Alexander A. Goldenweiser, "Cultural Anthropology," in *The History and Prospects of the Social Sciences*,

as organic evolution. Faris points out that the younger sociologists of the third generation take "the position that sociology is a natural science." Yet he also states that they doubt "the validity of the concept of evolution as applied to human society" and are dissatisfied "with the notion of any inevitable progress."²⁷ Surely the doubt and the dissatisfaction are inconsistent with the view that the social studies deal with nothing more than natural phenomena. Ellwood's statement that "the social sciences are much more sciences of culture than of nature" would seem to distinguish the cultural from the natural; and in his discussion of a scientific basis for ethics he presents certain considerations which the natural-science sociologists apparently overlook. At the same time cultural sociologists often talk about social and cultural "evolution" or about institutional changes that are, it would seem, historically predetermined.²⁸ Studies of the artificial aspects of culture should help to clarify some of these issues about which controversy now so violently rages.²⁹

Regardless of the question of artificiality, however, it appears that any scientific social reconstruction or control should come *after* a clear understanding of the natural elements in social behavior and underlying social behavior. It is undoubtedly true that these elements can be properly comprehended only through an adequate

ed. Harry E. Barnes (New York, 1925); Francis S. Chapin, *Cultural Change* (New York, 1928).

²⁷ Faris, *op. cit.*, p. 687.

²⁸ Cf. *ibid.* The natural-science sociologists rightly react against moral pronouncements that are "presumptuous" and "pontifical"; but they cannot thus evade the issue that, in any "planned control" or "new deal" changes, some "standard" or "norm" is implied. See Franklin H. Giddings, "The Ethics of Social Progress," *International Journal of Ethics*, Jan., 1893, pp. 137-164; Arthur J. Todd, *Theories of Social Progress* (New York, 1918); Luther L. Bernard, "The Conditions of Social Progress," *American Journal of Sociology*, July, 1922, pp. 21-48; also, his "The Development of the Concept of Progress," *Social Forces*, Jan., 1925, pp. 207-212; May, 1925, pp. 617-622; Sept., 1925, pp. 36-43; Leonard T. Hobhouse, *Social Development* (London, 1924); Edward Sapir, "Culture, Genuine and Spurious," *American Journal of Sociology*, Jan., 1924 pp. 401-417; Ulysses G. Weatherly, *Social Progress* (Philadelphia, 1926); Charles A. Ellwood, *Cultural Evolution* (New York, 1927); Joseph K. Folsom, *Culture and Social Progress* (New York, 1928); Joyce O. Hertzler, *Social Progress* (New York, 1928).

²⁹ Cf. Ellwood, *Methods in Sociology*, pp. 81, 128; also, most of the references in n. 25, above; and Pitirim A. Sorokin, "Is Accurate Social Planning Possible?" *American Sociological Review*, Feb., 1936, pp. 12-25.

scientific methodology. Observation and verification, theory and rigorous analysis—both of these, as elsewhere, must continue to be applied in the social and economic fields if a veritable social science is ever to be forthcoming.

CHAPTER III

THE TECHNIQUES, BASIC CONCEPTS, AND PRECONCEPTIONS OF SCIENCE AND THEIR RELATION TO SOCIAL STUDY

THE NECESSITY for a clear understanding of the dual character of scientific method (verified observation on the one hand and theoretical analysis on the other) and of its applicability in social study as in the physical and biological sciences, can hardly receive too much emphasis at the present stage of social and economic development. Such an understanding, however, merely provides the proper beginning or orientation in the organization of a scientific discipline. That which is a common element in all scientific procedure can hardly serve to differentiate one science from another.¹

The precise differentiation, as exhibited in the history of the sciences, is seen to be bound up with several other important considerations pertaining to the given field of knowledge it is sought to organize scientifically: first, the matter of ascertaining the relationship, of the given unorganized field, to the sciences which are already established or are in process of being established; second, the matter of discovering the basic concepts of the unorganized field; third, the matter of clearing away long-standing misconceptions which hamper scientific progress in the given field; fourth, the matter of utilizing and developing tools and techniques provided by sciences already organized. General scientific method of theoretical analysis and verified observation is applied in these four particular directions as any specific body of knowledge takes on the character of a science. Out of this concrete application develop the definite specialized

¹ Karl Pearson's statement that "the unity of all science consists alone in its method" is, likewise, not sufficient, since the unity of science consists also in a "genetic" and "structural" relationship between its various branches. Cf. *The Grammar of Science* (3d ed.; London, 1911), Part I, p. 12; also Abraham Wolf, *Essentials of Scientific Method*, pp. 15-16.

procedures and categories of one science as distinguished from those of another.

These considerations seem particularly pertinent to social study at the present time, and a brief résumé of what the history of the physical and biological sciences reveals with respect to them should be helpful to an understanding of important methodological questions with which economics and sociology are now faced.

SECTION 10. METHODOLOGICAL CONSIDERATIONS EXHIBITED IN THE DEVELOPMENT OF THE PHYSICAL AND BIOLOGICAL SCIENCES

Certain "genetic" and "structural" relationships between the recognized sciences have already been outlined in some detail.² There is a definite dependence or order in the establishment of their basic concepts: those of mathematics came first, in ancient Greek times; then came those of mathematical astronomy, after 1600; the elucidation of these variables was followed by the discovery of those of physics, during the same century, and of those of chemistry at the end of the next one; with these fundamentals known, it became possible in the nineteenth century to formulate the basic concepts of geology and biology. Finally, by the end of the last century, the groundwork seemed complete enough to undertake a fruitful search for the essential variables of mental activity. The development of those of social relations would appear to be next in order.

The discovery or formulation of primary concepts is clearly tied up with the dissipation of long-standing misconceptions and with the development of specialized analytical and observational tools and techniques.

Mathematics is sometimes called the "queen of the sciences" because the instruments it formulates have proved fundamental to all other analytical and observational procedures. A detailed analysis of the mysticism which surrounded the idea of numbers for a long period of time, and which had to be dispelled before a rigorous mathematical discipline could emerge, would take us too far afield.³ Suffice it to say that, with the purification of mathematics from this mysti-

² Cf. chap. i, sec. 2, above. Cf., also, citations there given to Mayer, *The Seven Seals of Science*.

³ Cf. Tobias Dantzig, *Number: The Language of Science* (New York, 1933), pp. 37-56; Eric T. Bell, *The Queen of the Sciences* (Baltimore, 1931).

cism and with the foundations laid by the ancient Greeks and the Hindus, the preparations were complete for the development of modern science. Without these foundations, especially the Greek analysis of conic sections, Kepler could not have discovered the laws of planetary behavior, which in part provided the necessary groundwork for the modern science of astronomy. Without them, analytical geometry and the calculus as tools for depicting and analyzing motion could not have been devised, and these and other mathematical implements were likewise important for an understanding of the laws of celestial and terrestrial action, worked out by Kepler, Galileo, Newton, and others. Modern mathematical analysis has gone still further and has developed additional instruments applicable not only to the newer problems of physics and chemistry but also, through a better understanding of probability, statistical inference, and mass action, to problems in biology, psychology, and the social studies.

In astronomy and physics there were innumerable misconceptions which had to be dissipated before scientific variables and hypotheses in these fields could be formulated. Such misconceptions included long-standing sophistries regarding perfect heavenly spheres moving in circular orbits about a central earth and fallacies regarding falling bodies and the influence of goat's blood or garlic on magnetic attraction. Along with the dissipation of such preconceptions came the perfection of certain physical tools which, added to the mathematical techniques, were essential to the discovery of additional primary variables. The telescope made it possible for astronomers to turn to physical celestial problems; the spectroscope enabled them to widen their interests still further.⁴

As a prelude to the discovery of the element, the atom, and the molecule as basic for chemical analysis, physics had to make clear the meaning of such factors as weight, temperature, and pressure, and had to develop such tools as the balance, the thermometer, the vacuum pump, the electric furnace, and the mechanism of electrolysis. And additional false theories of ancient vintage, having to do with the practices of alchemy and of the so-called imponderables, had to be swept away.

⁴ For the type of technical physical and chemical instruments used in a modern astronomical observatory, see Mayer, *The Seven Seals of Science*, pp. 265-267.

Nature study, the forerunner of the sciences of geology and biology, remained enmeshed in false conception and superficial observation until the seventeenth century, when the development of the microscope as an observational implement pointed the way to more scientific procedures. Then came the additional tools of physics and chemistry mentioned above, also compound and polarizing microscopes, and other technical physicochemical implements for examining rigorously the phenomena of geological constitution and change, the structure of living tissue, and the character of life processes. After the beginning of the nineteenth century, the application of these instruments and techniques assisted in clearing away false notions about catastrophic geological change, a cold earth fashioned out of hand, special biological creations, and about an earthly existence beginning but a few thousand years back. Out of such developments and clarifications as already suggested, after 1830 came scientific concepts pertaining to geology, and around 1860 came the discovery of the cell, the protoplasm, and the germ layers, and the enunciation of the evolutionary hypothesis, as the essential variables around which geology and biology have since reared their scientific structures.

Mystical speculation and superficial introspective observation were all that mental philosophy (the predecessor of psychology) had to work with until physics and biology provided an understanding of the physico-physiological basis of psychological phenomena. The nineteenth century was well under way before physicists and physiologists furnished a scientific analysis of the structure and functioning of the eye and the ear, devised suitable instruments and techniques for measuring biological changes accompanying sensations of various kinds (such as changes in blood pressure, respiration, muscular reaction, and glandular response), and traced the positions of sensory and motor nerves. Later, other sense organs, and the brain, the spinal cord, and the nervous system were more fully explored, and comparative and genetic biopsychological studies were undertaken. At the same time, crude introspective, structural, faculty, and mystical preconceptions were foresworn, and so-called behaviorism took its rise. Unfortunately the attempt to oust rampant metaphysical and theological misconceptions with respect to mental phenomena and to copy the "objective" methods of physical science, led for a

time to the almost total neglect of the more important aspects of psychological phenomena as such; but with the launching of the Gestalt hypothesis and the development of the Würzburg and other modern schools of verified introspective observation, it appears that psychology is finally grappling with its real problem, namely, the rigorous analysis of such higher mental processes as ideation, memory, imagination, reasoning, emotion, attention, volition, interest, judgment, value.

SECTION 11. APPLICATION TO SOCIAL STUDY

Several methodological considerations bearing upon social study become clarified in the light of the foregoing résumé. (1) Although every science must ultimately formulate its own methods and techniques, these are apparently neither wholly unique nor unpredictable, for in the dependence of each science upon preceding sciences or disciplines it borrows and develops many of the elements of its primary procedures and basic variables. (2) The scientific disciplines nearest of kin to the social studies, and thus next preceding them in the hierarchy of the sciences, are presumably psychology and biology, so that it is fair to assume that in these two fields primarily (rather than in geology, chemistry, physics, or mathematics) are to be sought the most important elements for formulating the essential techniques and concepts of social study. (3) In the light of these most important elements (whatever they may be), mathematical, statistical, and physical-science procedures in social study appear to be relegated to the plane of subsidiary aids. (4) "Genetically" considered, it would seem reasonable to seek certain of the basic variables of social study, on the one hand in those biopsychological factors which distinguish *homo sapiens* from other animals (such as the development of the hand, language, abstract thought, and rational foresight, though the *human* is not necessarily synonymous with the *social*), and on the other hand in those earliest prehistoric social groupings of which we thus far have knowledge (such as the family, the clan, hunters, fishers, navigators).⁵ (5) Added to the "genetic,"

⁵ Cf. Jacques J. M. de Morgan, *Prehistoric Man: A General Outline of Prehistory* (New York, 1925); Georges F. Renard, *Life and Work in Prehistoric Times* (London, 1929); William H. R. Rivers, *Social Organization* (London, 1924).

the historical analysis of cultural forms should throw further light upon the nature of basic social categories. (6) Such an approach as the foregoing, coupled with an unbiased examination of handed-down preconceptions, has served to clear away the worst of the underbrush of fallacious and inadequate theorizing in the physical and the biological sciences; and there is no reason why similar methods cannot serve to produce like results in the social studies.⁶

Scientific concepts and techniques for social study should, in short, be looked for: (1) in psychology (especially in social psychology); (2) in biology (as in anthropology); (3) in geology (as in human geography); (4) in the physical sciences and mathematical disciplines (as in those branches dealing with mass action, probability, statistical inference, and the functional analysis of many interrelated variables). Statistical analysis and mathematical manipulation of social and economic data would seem to represent necessary but preliminary steps in an understanding of social phenomena, *until* the basic social categories have been disclosed and the biopsychological human values, interests, drives, dispositions, and the like, *which give rise to the social phenomena*, have become clarified. *Then* the statistical and mathematical aids to accurate observation of social activity in the mass, take on added significance as *verifying procedures*. But, even then, the more important observational and verifying instruments will, it appears, continue to be psychological in character, that is, instruments which lead to a clearer scientific understanding of human nature, its drives, dispositions, judgments, interests, and values. Such procedures must, perforce, be in large part "introspective" or "self-observational" in the best and most exclusive meaning of these terms, verified repeatedly by other self-observers and so devised that they may be as "objective" as possible in the sense of producing unbiased and impartial results. As for historical techniques, they also, like the mathematical and the statistical, must apparently be regarded as subsidiary to the main procedures indicated above, in the organization of social study into social science. The further bearing of these preliminary observations will be obvious as we proceed.

⁶ Cf. Sorokin, *Contemporary Sociological Theories*.

CHAPTER IV

NATURAL-SCIENCE AND MATHEMATICAL TECHNIQUES IN SOCIAL STUDY

IN WHAT RESPECTS the foregoing considerations, gleaned from the history of the recognized sciences, have in the past actually received attention from prominent students of social phenomena and in what respects they are being taken into account today, we shall examine in this and in the next two chapters, which chapters will to a large extent also summarize and appraise the excellent casebook "compiled under the direction of the Committee on Scientific Method in the Social Sciences of the Social Science Research Council" and containing fifty-two analyses of more than sixty conspicuous contributions. This casebook is without question the most significant and authoritative attempt thus far made in the United States to ascertain important current methods and concepts in use in the social studies, covering the fields of statistics, human geography, psychology, social psychology, history, politics, law, economics, and sociology.¹

The word "methods" in the casebook is used to include not only scientific method in the broad sense of verified observation and theoretically analysis, as illustrated in preceding chapters of the present volume, but also specialized techniques in the narrower sense.² In

¹ Rice (ed.), *Methods in Social Science*. A number of reviews of this work have appeared, among which the following may be cited: A German appraisal by Karl Mannheim and a French comment by Maurice Halbwachs, *American Journal of Sociology*, Sept., 1932, pp. 273-282; Nov., 1932, pp. 453-458; also, Benjamin Ginzburg, *New Republic*, March 11, 1931, pp. 103-104; Samuel W. Fernberger, *Annals of American Academy of Political and Social Science*, May, 1931, p. 243; Charner M. Perry, *International Journal of Ethics*, July, 1931, pp. 524-526; Walter J. Shepard, *American Political Science Review*, Nov., 1931, pp. 1071-1073.

² Rice (ed.), *Methods in Social Science*, pp. 7-10. The "conceptual version" of method ("the concepts and assumptions underlying scientific inquiry," "ways of conceiving problems and data," "the set of ideas" which an investigator uses, his "guiding point of view," etc.) is here regarded as more fundamental and precedent to method in the more limited sense of specialized techniques and procedures. With this statement the present writer is in agreement except that he would emphasize that the conceptual

selecting case studies of methods thus broadly and narrowly defined, seven societies represented in the membership of the Social Science Research Council made recommendations through advisory committees appointed for the purpose. Competent specialists were called upon to make the analyses recommended. And precautions were taken to "include all of the principal ways of conceiving their tasks which social scientists have adopted" in providing the present structure of the social studies, "securing representation among the projected analyses for all of the more important 'schools' and points of view within the specialized disciplines."³

The arrangement of the case studies in the volume in question is more or less arbitrary, and various suggestions for regrouping them are contained in the appendices. Their rearrangement, in the light of our preceding discussion, and an analysis of their content, will serve to give further point to the present account.

SECTION 12. RELATIONSHIP OF VARIOUS SOCIAL FIELDS TO THE RECOGNIZED SCIENCES

With respect to the relation of the social studies to the recognized sciences, two analyses are included in the casebook: one bearing on the profound methodology of Auguste Comte; the other sketching certain connections within modern psychology and between psychology and other sciences.⁴ Comte emphasized the hierarchy of the sciences, indicated that the scientific organization of the social studies must be based upon a fuller knowledge of biology, and attempted in a preliminary way to distinguish between psychological, sociological, and ethical concepts.

Psychology as a scientific discipline had not been created in 1857, when Comte died, so that his impressions regarding mental phenomena should be supplemented with present-day knowledge. This the second analysis mentioned attempts to do, albeit, it would seem, with unnecessary inconclusiveness.⁵ The experimental, structural

phase of general scientific method must be supplemented by the observational phase. The editor of the casebook may mean to suggest, however, that, at the present stage of social study, conceptual problems are more important than observational problems (the techniques of which are fairly well advanced).

³ *Ibid.*, pp. 736-737, 743.

⁴ *Ibid.*, analyses 1 and 5.

⁵ Cf. Fernberger's review, *Annals*, May, 1931, p. 243.

psychology of Titchener as a pupil of Wundt is there compared with the psychology of Gestalt, which emphasizes the form or configuration of mental phenomena; and the methodology of Titchener, in ranking psychology with biology and physics as one of "the three major sciences," is indicated. But the further significance for social study of this methodology is not pursued by the casebook analyst, nor are the important modern developments of the Wundt-Titchener techniques even mentioned.⁶

Comte (to return to the casebook analysis of his work), in his so-called "law of the three states," which he gleaned from an exhaustive study of the history of the sciences, gave pointed emphasis to the conceptual difficulties confronting any field of knowledge that is endeavoring to organize itself into a science. "From the nature of the human intellect, each branch of knowledge in its development is necessarily obliged to pass through three different theoretical states: the theological or fictitious state; the metaphysical or abstract state; and lastly, the scientific or positive state."⁷ Thus, if the social studies are still encumbered with theological and metaphysical preconceptions, it is probably merely symptomatic of a period in their development which is still somewhat short of scientific maturity.

Comte also recognized that a scientific understanding of the basic variables of human nature is a necessary preliminary to the organization of sociology into a science. Man's "spontaneous tendencies" can alone "furnish sufficiently solid basis for its authority."⁸ One must "begin by analyzing the individual impulsions which are the characteristic elements of the progressive power of the human species," and must relate "these impulsions to that fundamental instinct (the eminently complex result of the necessary concourse of all our natural tendencies) which directly urges man to ameliorate his condition."⁹ Comte further insisted that, until such fundamentals have been clearly formulated, it is futile to assume that fragmen-

⁶ Cf. Rice (ed.), *Methods in Social Science*, analyses 51 and 52, for these developments.

⁷ Auguste Comte, *Early Essays on Social Philosophy*, tr. Hutton (London, 1911), pp. 131-132.

⁸ Auguste Comte, *Cours de Philosophie Positive*, ed. Littré (2d ed.; Paris, 1864), IV, 252.

⁹ *Ibid.*, IV, 262.

tary studies of social relations will be anything but superficial and misleading. In the meantime one will obtain "only a sterile and encumbering mass of irrational special discussions, badly instituted and worse pursued."¹⁰

And, one might add, no amount of precise mathematical or statistical manipulation of any such sterile mass can throw light upon the characteristic "impulsions," "fundamental instincts," or "natural tendencies" of the human species. Much has been written about "instincts" and "tendencies" since Comte's time, but students of social relations today seem to require, about as much now as they did then, the exhortation he gave regarding the essential and pressing need for ascertaining the basic variables of human nature.

SECTION 13. BIOPSYCHOLOGICAL FUNDAMENTALS AND TECHNIQUES

What psychology, biology, and "behaviorism" have in recent years been able to contribute regarding these human-nature fundamentals seems regrettably meager if measured by the concepts agreed upon among specialists in these fields. The pioneer work of McDougall on primal human instincts is still as vigorously criticized as it is defended, with little apparent disposition to accept his methodology even tentatively and with open-mindedness test out his preliminary hypotheses more thoroughly.¹¹ Possibly now that the tide in favor of crass behaviorism has turned and one may venture to espouse rigorous introspective analysis without being consigned to the outer darkness of faculty ghosts and supernatural demons, more comprehensive and constructive analyses of elementals will be attempted. A great mass of observational data has already accumulated. What is here apparently needed primarily is better sifting and synthesis in the light of more adequate hypotheses in which the introspective as well as the behavioristic is assigned a proper role. Briefly stated,

¹⁰ *Ibid.*, IV, 255-256.

¹¹ Rice (ed.), *Methods in Social Science*, analysis 10. Cf., also, Knight Dunlap, "Are There Any Instincts?" *Journal of Abnormal Psychology and Social Psychology*, Dec., 1919, pp. 307-311; William McDougall, "The Use and Abuse of Instinct in Social Psychology," *Journal of Abnormal Psychology and Social Psychology*, Dec., 1921; March, 1922, pp. 285-333, and his *An Introduction to Social Psychology* (rev. ed.; Boston, 1926).

McDougall's contention, based upon many years of fact-gathering and experience as a recognized psychologist, is that man possesses a limited number of native instinctive dispositions (psychophysical in nature, with cognitive, affective, and conative aspects); which as such have undergone virtually no change in the history of the race; out of which through acquired experience arise the compound sentiments or emotions and the deliberate volitions that constitute individual character; and upon which all social conduct ultimately rests.¹² This is not the place to enter into the controversies McDougall's theory has engendered. To the present writer his theory appears as an excellent working hypothesis, which might be modified in a number of directions without losing its essential significance, and which, with the casting off of behavioristic and mechanistic bewitchments, should before long be subjected to adequate testing procedures.¹³

As indicated in certain other of the casebook studies, great advance has recently been made in developing important psychological and behavioristic tools and techniques. There are the tests and rating scales devised by Thorndike and other specialists, for the purpose of making comparisons or arranging an order of merit with respect to qualitative differences in individual performance.¹⁴ There are also: rigorous methods outlined by Woodworth for studying young delinquents, portrayed in the work of two investigators, both using psychological and statistical implements, one employing "subjective" procedures, the other insisting upon "behavioristic" methods; certain attempts, though crude, to understand delinquent behavior, for purposes of correction; strict biopsychological studies, such as the effect of rest pauses on repetitive work; and the methods of Thurstone in estimating group influences on individual mental activity.¹⁵ There

¹² Cf. p. 46, below.

¹³ Cf. Rice (ed.), *Methods in Social Science*, analysis 9, with respect to difficulties inherent in "objective" typological attempts to study character.

¹⁴ Rice (ed.), *Methods in Social Science*, analysis 13. The distinction between "subjective" and "objective" procedures is discussed in chap. ii, above.

¹⁵ Rice (ed.), *Methods in Social Science*, analyses 36, 39, 48, 49. Cf., also, Louis L. Thurstone and E. J. Chave, *The Measurement of Attitude* (Chicago, 1929); Stuart A. Rice (ed.), *Statistics in Social Studies* (Philadelphia, 1930), pp. 171-196; Clifford Kirkpatrick, "Assumptions and Methods in Attitude Measurements," *American Sociological Review*, Feb., 1936, pp. 75-88, which presents a penetrating analysis of the difficulties involved in attitude measurements; and Edward J. B. Barrett, *Motive-Force*

are, finally, what to the present writer constitute the more significant introspective or self-observational techniques for the study of the higher mental processes developed in the Würzburg laboratory and by the followers of Ebbinghaus and others.¹⁶ As already indicated, it would seem that a further development of such procedures is of highest importance for general and social psychology and for specialized social studies such as economics. The application of rigorous self-observational techniques to economic, political, and other problems surrounding human interests and values, should do much to advance preliminary knowledge of these phenomena, pending the time when such methodology has provided a more thoroughgoing understanding of human nature itself—of the drives, emotions, interests, judgments, and values which constitute its primary elements.

SECTION 14. "GENETIC" APPROACH TO SOCIAL STUDY

Supplementing the strictly psychological and behavioristic attack upon the problems of human nature is the "genetic" attack upon the problems of existing social relations and institutions, also exemplified in the casebook. Sumner emphasized this significant approach by endeavoring to reduce complex social institutions to more elementary folkways and mores.¹⁷ After years of exploratory research, gathering material in innumerable fields and languages for the analysis of existing cultures to derive their typical elementary forms, Sumner attempted to uncover those phases of human nature and behavior which lead to social custom and habit. He viewed folkways as cultural traits or action patterns, the products of use, wont, manners, and customs, which show the diversified ways of ordinary human action and the forms of belief and sentiment characterizing social life, the immediate motivating force behind them being human interest. Mores he regarded as special types of folkways having to do with what is right and proper: "All notions of propriety, decency, chastity, politeness, order, duty, right, rights, discipline, respect, reverence, coöperation, and fellowship, especially all things in regard to

and Motivation-Tracts (New York, 1911). For a discussion of value measurements, see chap. xxiv, below.

¹⁶ Rice (ed.), *Methods in Social Science*, analyses 51 and 52.

¹⁷ *Ibid.*, analysis 8.

which good and ill depend entirely on the point at which the line is drawn, are in the mores."¹⁸

At the same time, folkways and mores were not thought of by Sumner as "creations of human purpose and wit.... They are like products of natural forces which men unconsciously set in motion, or they are like the instinctive ways of animals, which are developed out of experience, which reach a final form of maximum adaptation to an interest, which are handed down by tradition, and admit of no exception or variation, yet change to meet new conditions, still within the same limited methods, and without rational reflection or purpose."¹⁹ Together with other recent students, however, the present writer questions whether any such clear-cut line of demarcation can be drawn between unconscious and deliberate human activity.²⁰

Some of the social categories which Sumner found important as a result of a lifelong study of his materials, were the following: the family group; other groups or classes; group character or ethos; racial and nationalistic sentiments or ethnocentrism; religious sentiments and sectarianism or asceticism; taboo, convention, and etiquette; fads and fashions; ceremonial and literature; institutions.²¹ The relative importance and potency of these preliminary or exploratory concepts, or of like social categories, must rest upon the characteristic pattern of fundamental innate capacities or dispositions in human nature out of which the folkways and mores take their rise.²²

Somewhat similar in point of view to Sumner's *Folkways*, but using other methods and concepts, is the more recent study of the Polish peasant by Thomas and Znaniecki.²³ Sumner talked of customs and habits; these writers speak of values and attitudes. Sumner was interested in a *description* of the folkways and mores; Thomas and Znaniecki, in *changes* when emigrants move from one set of social conditions (in Poland) to another (in the United States). In *The Polish Peasant* the life-history method is used, based upon a study of

¹⁸ William Graham Sumner, *Folkways: etc.* (New York, 1906), p. 231.

¹⁹ *Ibid.*, p. 4.

²⁰ Cf. Graham Wallas, *The Great Society* (New York, 1914), pp. 3-232.

²¹ Rice (ed.), *Methods in Social Science*, pp. 160-161. ²² *Ibid.*, p. 158.

²³ *Ibid.*, pp. 162-175, analysis 8. Cf., also Herbert Blumer, *Critiques of Research in the Social Sciences I* (New York, 1939).

intimate family letters and the lives of Polish immigrants in the United States, and a conception of personality is formulated around which the disclosed attitudes and values are grouped. Three types of personality emerge from these studies: the philistine or conventional; the bohemian or radical; and the creative or purposeful. As fundamental to these types, there appear four positive "wishes" or "desires": for new experience (curiosity), for security (caution and avoidance of danger), for recognition (self-seeking and ambition), and for affectionate response (sex craving, love, friendship). These so-called wishes or desires may be compared with McDougall's innate dispositions: curiosity and wonder; pugnacity and anger, flight and fear; self-assertion and elation, acquisition and construction; parental instinct and the tender emotion, self-abasement and subjection, reproductive instinct, and gregariousness.²⁴

Other more specialized "genetic" studies of existing social relations, customs, habits, attitudes, or beliefs have also been undertaken in recent years. Among these the casebook mentions significant investigations into the essential dispositions, drives, and interests underlying the development of family and kinship, horde and tribe, race, myths, and economic institutions, by such outstanding students as Malinowski and Boas.

Malinowski's anthropological study of sex and repression in existing savage Melanesian societies may be regarded as of highest importance in pointing the way to further fundamental psychogenetic investigations.²⁵ Although his work is largely exploratory, Malinowski raises significant questions regarding the theories of Freud, "mother-right" and "father-right" complexes, origins of horde, clan, and tribe, and the beginnings of culture in general. The creation of implements and language and the formation of the primitive family are apparently among those fundamentals upon which the development of human nature and of social or cultural relations has depended.

The studies of Boas into the origins of race and of myths, if not possibly as basic "genetically" as those of Malinowski, are probably even more important from other points of view, especially in the rigor

²⁴ *Ibid.*, pp. 191-192.

²⁵ *Ibid.*, analysis 34; also, Bronislaw Malinowski, *Sex and Repression in Savage Society* (New York, 1925), and *Argonauts of the Western Pacific* (New York, 1922).

of the techniques employed.²⁶ His carefully controlled anthropometric investigations of the physical characteristics of American immigrants, have made it strikingly clear that racial types change materially under new physical environments and have opened the way to strictly scientific studies of heredity and race mixture. It has never been more apparent "that there are today no pure or unmixed races" and that "there is no correlation between race, language, nationality, or religion."²⁷ "Race," therefore, is probably not an elementary human or social category.

The folk-tale study of Boas and his students is spoken of in the casebook as "the most voluminous and careful analysis of any primitive literature known to the analyst."²⁸ The methods employed are again empirical and comparative. They consist, for a given area, of collecting all existing comparable folk tales and of making a careful inductive analysis of them. The results are highly significant in that they tend to dispel the preconception of a definite sequence or evolution of cultural forms. In this study folk myths or tales appear as combinations of disconnected culture elements; representing the play of human imagination upon everyday wishes, activities, sentiments, and emotions; brought together through unequal diffusion of various components from different centers and through their accidental commingling; and reintegrated secondarily with local elements. Here are excellent fields and methodologies for further significant investigations into the genesis and development of certain folkways, on the one hand, and of the imaginative mental life of primitive peoples, on the other.

Hobson's effort to bring about a valuation of economic phenomena in terms of human needs, interests, and welfare is not only a "genetic" investigation of human motives in economics but also a penetrating criticism of abstract classical value theory and an ethical appraisal of existing economic practices.²⁹ While some of his ideas, such as those bearing upon the social-organism theory, upon an outmoded

²⁶ Rice (ed.), *Methods in Social Science*, analyses 31 and 42; also, Franz Boas, "The Growth of Indian Mythologies," *Journal of American Folk-Lore*, Jan.-March, 1896, pp. 1-11, and "Changes in Bodily Form of Descendants of Immigrants," *Report of the United States Immigrant Commission* (Washington, D. C., 1910).

²⁷ Rice (ed.), *Methods in Social Science*, p. 582.

²⁸ *Ibid.*, p. 449. ²⁹ *Ibid.*, analysis 35.

psychology, or upon socialist doctrine, are open to legitimate attack, the casebook analysis nevertheless falls far short of doing justice to his central position, which will be more fully explored later on.³⁰

Further examples of "genetic" studies of existing social relations have been or will be reviewed in other connections.³¹ Together with the more strictly biopsychological analyses already taken up, they strive to answer questions of first importance for a more scientific understanding of human nature and social phenomena. Until, through such studies, more or less satisfactory answers to pertinent questions are provided and until the innate drives and acquired tendencies of the human organism are more clearly discerned, any direct approach to complex social facts and processes is, as Comte indicated, bound to be superficial and exploratory, even as biological facts were inadequately understood before the evolutionary hypothesis was launched and verified.³²

SECTION 15. BIOGEOLOGICAL APPROACHES

While biology should ultimately assist students of society to a better understanding of the nature of man, it and its sister science geology also offer the use of their techniques for reconstructing prehistoric cultures and for indicating the conditioning role of natural environment.

In the one respect, the casebook provides excellent examples of the use of stratigraphic, archeological, and related criteria in helping to establish cultural sequences, to determine prehistoric culture areas, and to trace interrelations.³³ The more extensive pursual of such pioneer investigations should lead to important knowledge of the material aspects of primitive folkways and mores and of the more complex cultures which marked the beginnings of civilization.

In the other respect, the casebook reveals the conditioning influence of natural environment at all stages of cultural process from prehistoric to modern times.³⁴ Satisfactory techniques for appraising

³⁰ See pp. 80-83, below.

³¹ Cf. analyses 32, 39, and 40.

³² Cf., also, suggestion in Woodworth's letter (Rice, ed., *Methods in Social Science*, p. 744) regarding the importance of studies in child behavior as bearing upon the genesis of social relations. Such studies are not dealt with in the casebook.

³³ Rice (ed.), *Methods in Social Science*, analyses 18 and 19.

³⁴ Cf. Lucien P. V. Febvre, *A Geographical Introduction to History* (New York, 1925).

this influence with regard to any given culture or culture-area are still to be worked out, though, here too, significant exploratory efforts are in progress. The best example afforded by the casebook of environmental studies of early cultures has to do with Wissler's anthropological researches among primitive peoples, leading to his development of the concepts of culture-area and age-area.³⁵ These concepts, borrowed from systematic biology and natural history, "deal with the space distribution of culture phenomena"; though not new in anthropologic research, they were without explicit methodological formulation before Wissler's writings.³⁶

In investigating American Indian cultures Wissler divided the hemisphere into a number of culture-areas and listed the principal traits characterizing each, such as physical types, foods, languages, flora and fauna, climate. In studies of a culture-area, a center or nucleus of diffusion is emphasized and the nature of changes at the fringes is pointed out. The age-area concept attempts to establish relative time-sequences from different survival qualities of culture-trait at the center and periphery of culture-areas. The chief criticism thus far made against these concepts seems to be that they tend to be used apart from other procedures and, thus isolated, lead to questionable results. Combined with psychological, "genetic," and historical techniques, they give promise of bringing about a more satisfactory understanding of the relation of primitive cultures to environment.

Less rigorous inventory or survey methods for preliminary investigations of the topography, natural resources, economic and industrial conditions in small geographic areas are being extensively applied to modern communities.³⁷ Of much more significance here are the limited, but carefully projected, studies in agricultural economics instituted in recent years.³⁸ An outstanding example of such investigations, involving also the use of statistical procedures, is the study by Ezekiel of the concept of diminishing returns from natural re-

³⁵ Rice (ed.), *Methods in Social Science*, analysis 17; also, Clark Wissler, *The American Indian* (2d ed.; New York, 1922), *Man and Culture*, and *The Relation of Nature to Man in Aboriginal America* (New York, 1926).

³⁶ Rice (ed.), *Methods in Social Science*, p. 248.

³⁷ *Ibid.*, analyses 14, 15, and 16.

³⁸ *Ibid.*, Appendix F.

sources, a work of essential import in depicting the bearing of natural environment upon economic conditions.³⁹

SECTION 16. MATHEMATICO-STATISTICAL METHODOLOGY

The casebook methods and procedures that have been outlined (the psychological, biological, and geological), though fundamentally important for the scientific formulation of the basic concepts of human nature and social relations, have thus far been viewed primarily as they apply to the intimate study of individuals or of severely limited social groups or geographic areas.⁴⁰ Where relations between great masses within large areas and involving an indefinite number of variables are concerned, as is the case with the complex institutional situations of modern societies, it is necessary to apply, both at the preliminary and at every intermediary stage of observational verification, physical and mathematical techniques having to do with such subjects as mass action, probability and chance, functions and functionals. These preliminary and intermediary applications temporarily reduce individuals and social variables to things, numbers, and functional relationships, but this is a necessary procedure if complex relations and variables are to be kept logically before the mind. It must not be forgotten, however, that these applications are always preliminary or intermediary and that the ultimate purpose for scientific social study must be to make the primary psychological, biological, and geographical analyses mentioned in the foregoing pages. One is otherwise taking the means for the end, the shadow for the reality, the shell for the content, and may even go so far as unwittingly to subscribe to a "holy and immaculate quantitativism."⁴¹

These precautionary remarks are not meant as a derogation of physical-science and mathematical methodology in social study. They are meant merely to indicate its place. In its place it is highly important and must always continue to be so; if anything, increasingly so, after the basic concepts of social study have been formulated.

³⁹ *Ibid.*, analysis 45.

⁴⁰ The exceptions, e.g., in analyses 39 and 45, employ the additional statistical techniques about to be examined.

⁴¹ Cf. Pitirim Sorokin, "Recent Social Trends: A Criticism," *Journal of Political Economy*, April, 1933, pp. 194-210; also, Raymond T. Bye, *Critiques of Research in the Social Sciences II* (New York, 1940).

At present its importance rests upon the working out of technical procedures particularly applicable to social study, and in this respect remarkable progress has been made in recent years, in statistics on the one hand and in higher mathematical analysis on the other.

Mathematical and statistical methods in social study are sometimes combined. The latter depend upon and acquire more rigorous meaning through the former, although one may make use of statistical formulae and tables without understanding the mathematical analysis upon which they depend. Such is the usual situation. At times, however, as in the pioneer work of Moore, the application of higher mathematical analysis to social problems is direct and primary, though statistical procedures may likewise be involved.⁴² Moore's important work has to do with developing mathematico-statistical formulae covering the axiomatic, common-sense demand relationship, namely, that "the price of goods varies directly as the quantity demanded and inversely as the quantity supplied."⁴³ This broad statement, accepted by economists a century ago as all-sufficient, was subjected to successive refinements and clarifications (by Cournot, Walras, and others), as the interdependence of all prices and their relationship to time came to be appreciated, until a theoretically complete formulation of the demand function in all its complexity was obtained. In place of the ambiguous $P \propto \frac{D}{S}$ we now have

the precise $D = f(p_1, p_2, \dots, p_n, t)$. With this general formulation as a starting point, Moore set himself the problem of so modifying the function, without materially disturbing its rigor, that by the application of certain statistical devices (multiple correlation, relative changes, and trend ratios) he might be able to secure concrete demand equations from actual market prices. This problem he solved in his formulation of statistical demand curves for corn, potatoes, cotton, and other commodities.

Moore's mathematico-statistical contributions are important and

⁴² Rice (ed.), *Methods in Social Science*, analysis 46. Cf., also, Antoine A. Cournot, *Researches into the Mathematical Principles of the Theory of Wealth* (New York, 1897); Griffith C. Evans, *Mathematical Introduction to Economics* (New York, 1930); Ragnar Frisch, *Pitfalls in the Statistical Construction of Demand and Supply Curves* (Leipsic, 1933); Henry L. Moore, *Synthetic Economics* (New York, 1929).

⁴³ Rice (ed.), *Methods in Social Science*, p. 645.

noteworthy, but the very description of them indicates the severe limitations of the methods employed. Even with a few simple variables, each of which is precisely defined (quantity, price, time), the procedures are difficult to apply. To the complex and exceedingly intangible phenomena of the mind, the folkways, and other social processes described in preceding pages, they are as yet entirely inapplicable. In their place, however, and in their bearing upon the development of statistical techniques which have a fairly wide, though still somewhat limited, application, they are of highest significance for social study.

Statistics deals with large aggregations of data, often called "populations," which are variable and which by analysis are reduced to manageable form. The critical selection and assemblage of raw statistical material is the first problem; then follows the reduction of the material to a few relevant or significant values, which consistently, efficiently, or sufficiently reflect not only the selected sample but the whole population of which it is a part. Techniques of sampling, probability, and error are important first and last; and, in different stages of statistical handling, such additional devices are utilized as graphic portrayal, arrangement into frequency or time series, and the calculation of means, deviations, coefficients of correlation, index numbers, and the like. At bottom, then, statistics deals with variable traits or characteristics (such as the height of soldiers) which are quantitatively measurable and thus comparable. Yet no matter how perfectly the handling is carried through, it can rise no higher than its source. If the traits making up the "population" are superficially chosen, the results of the statistical analysis can have no deeper significance for social science than a superficial one. If the traits are selected with exploratory intent, the statistical results remain exploratory. Only in so far as the traits chosen represent basic variables in human nature and culture (which, of course, means that pertinent psychological, biological, and geological techniques have previously been applied), can the results of statistical manipulation be regarded as having real scientific import. And how far such basic categories (when formulated) will be found to be quantitatively measurable is another question the answer to which cannot be determined in ad-

vance. Qualitative considerations still appear of greater significance in social relations than quantitative ones.

The casebook contains a number of excellent examples of statistical method applied to social factors selected in a superficial, preliminary, exploratory, or more rigorous manner, with or without the assistance of more fundamental social-science procedures. Brief outlines of ten such analyses follow.⁴⁴

The first analysis covers investigations by Ogburn and Burgess which demonstrate the uses, difficulties, limitations, and superficial character of purely behavioristic concepts no matter how painstakingly analyzed statistically.⁴⁵ The following are the raw concepts used: the vote or ballot "as an index" of attitudes or opinions; certain overlapping "social classes"; "conservatism" versus "radicalism"; and parole violations.⁴⁶ The analyst Stuart A. Rice indicates that, though such crude factors are here thought of as "objective," nevertheless the choice of the topics studied, the type of data selected, the sampling processes employed, and the inferences drawn, are clearly conditioned by highly "subjective," biased, fortuitous, and predetermined considerations.

The second analysis covers studies into the causes of nonvoting, using experimental and control groups and the necessary statistical techniques but including such vague and inconclusive "objective" tests as "economic status" (based only on rentals), "literacy" (based wholly on the reading of English), "conditions of schooling," and "knowledge of government."⁴⁷ The view of the analyst of these studies, that such investigations are "scientific," may be compared with the view of Rice regarding the Ogburn-Burgess studies just referred to.

The third analysis furnishes an additional illustration of misunderstandings by another analyst of the meaning of scientific method

⁴⁴ Cf., also, analyses 39, 45, and 46, already reviewed in other connections, and Ronald A. Fisher, *Statistical Methods for Research Workers* (2d ed. rev.; London, 1928).

⁴⁵ Rice (ed.), *Methods in Social Science*, analysis 43.

⁴⁶ Cf. *ibid.*, pp. 75, 84-86, for Elliott's criticism of the use of such superficial concepts as the "vote" and the "radical-conservative" dichotomy.

⁴⁷ *Ibid.*, analysis 50.

and of such processes as "induction" and "deduction."⁴⁸ This analysis exemplifies, also, the use of important statistically summarized factual studies in giving more definite meaning to superficial common-sense assumptions (as Marshall's "representative firm" which, as one might expect, turns out to be the statistical mode), and the tendency to assume that fundamental social research is thus being pursued when the net result is the statistical elaboration of the obvious.

The fourth analysis covers a Missouri crime survey in which carefully devised statistical and descriptive procedures resulted in the gathering of significant data bearing on the administration of criminal justice in that state.⁴⁹ The variables employed proved, however, to be wholly inadequate, either in revealing the causes and remedies of crime or in determining the efficiency of the administrative system, both of which considerations were the avowed objectives behind the survey. Sutherland's excellent analysis of these shortcomings is well worth careful reading.

The fifth analysis covers Shaw's studies of juvenile delinquency, which illustrate the employment of adequate statistical, case-method, life-history, and interview techniques in exploratory and confirmatory investigations, but which define the concept "delinquent" loosely and indefinitely and apparently fail to apply any precise psychological, "genetic," or environmental criteria except as these are to some extent implicit in the author's general experience and outlook.⁵⁰

The sixth analysis covers a highly technical and efficient statistical analysis of a long series of British and American business-cycle and related observations, made in an attempt to show significant correlations between periods of prosperity and depression and such other social variables as marriage, prostitution, birth and death rates, pauperism, alcoholism, crime, and emigration—all of these concepts being highly complex, poorly defined, and vaguely conceived. Both the limitations of the procedures thus applied and the superficial

⁴⁸ *Ibid.*, analysis 44. Cf. the notes of this volume referring to the reactions of Deibler and Opie to the views of the analyst.

⁴⁹ *Ibid.*, analysis 38.

⁵⁰ *Ibid.*, analysis 40.

nature and "doubtful validity" of the concepts are indicated in the analysis.⁵¹

The seventh analysis covers the carefully devised methods employed in taking the Federal census of population in the United States, with the necessary use of very general or superficial categories (color, race, nativity, sex, age, occupation) so far as basic social variables are concerned.⁵²

The eighth analysis presents a technical improvement in a statistical device based upon inductive studies but dealing with the crudely broad concepts of family expenditures in the United States for food and for general maintenance.⁵³

The ninth analysis covers Thrasher's study of gangs, a highly significant exploratory investigation using psychological, behavioristic, "genetic," environmental, statistical, survey, case-study, and interview techniques in an effort to determine basic personal and cultural categories.⁵⁴ The analyst Kimball Young points out that, even in such rigorous investigations, statistical analysis and mere quantitative considerations are "at present inadequate to reveal the factors" which are basic, both because of "the overwhelming number and complexity of the variables involved" and because a mechanistic (behavioristic) approach does not expose the inner mental processes.⁵⁵

The tenth analysis covers Mitchell's extensive statistical investigations of the business cycle—probably the outstanding examples thus far of a scientific attack upon a complex social problem, which, if not a basic variable of human nature or of primary folkways, is undoubtedly one of the most important factors in modern capitalistic society.⁵⁶ The attack moves from a general exploration to a more rigorous approach in ascertaining the meaning of the problem of

⁵¹ *Ibid.*, analysis 41; also, Dorothy Swaine Thomas, *Social Aspects of the Business Cycle* (New York, 1927).

⁵² Rice (ed.), *Methods in Social Science*, analysis 11.

⁵³ *Ibid.*, analysis 12.

⁵⁴ *Ibid.*, analysis 37; also, Frederic M. Thrasher, *The Gang: A Study of 1,313 Gangs in Chicago* (Chicago, 1927).

⁵⁵ Rice (ed.), *Methods in Social Science*, pp. 520, 523.

⁵⁶ *Ibid.*, analysis 47; also, Wesley C. Mitchell, *Business Cycles: The Problem and Its Setting* (New York, 1928), and his "Quantitative Analysis in Economic Theory," *American Economic Review*, March, 1925, pp. 1-12; also, chap. xxviii, below.

business cycles, preconceived notions being impartially examined with the help of far-reaching statistical analyses and with the assistance of a competent technical staff, judgment being withheld regarding underlying causal connections, and traditional abstract economic theories being carefully avoided. The tentative conclusions are couched in terms of "analytic description" and are thought of as merely marking stages on the road to further investigation. Mitchell's immediate problem is a clearer definition of the complex business-cycle concept. Until the basic categories of social science are formulated, causal relationships between them and the social or economic problem in hand cannot, of course, be arrived at. In the interim, the only proper approach to intricate institutional difficulties would seem to be the one pursued by Mitchell. His own view of the necessity for such an approach is given in an appendix to the casebook analysis, in a letter which should be read by all students interested in the application of scientific method to economic phenomena.⁵⁷

⁵⁷ Rice (ed.), *Methods in Social Science*, pp. 675-680.

CHAPTER V

HISTORICAL AND RELATED CRITERIA IN SOCIAL STUDY

SECTION 17. THE METHODS OF THE HISTORIAN

THE SOCIAL-STUDY techniques and procedures thus far described have been developed by the recognized scientific disciplines, from mathematics through psychology. These may be applied to social relations either now in being or once existent in the past, although our review up to the present has been concerned chiefly with the former rather than with the latter. In dealing with past events the additional technical problem arises of resurrecting, as accurately as may be, the factors that are gone. This can obviously never be completely realized, but in so far as it is possible of accomplishment further procedures, the historical, are called into use.

A number of the casebook analyses bear directly on such techniques, those touching the studies of Pirenne and Schevill being outstanding. Pirenne outlines what historians are trying to do.¹ He indicates the severe limitations of historical method; the essentially fragmentary character of historical records, whether unwritten or written; the documentary procedures developed in epigraphy, paleography, diplomatics, numismatics, sigillography, heraldry, and the like; the constant need for technical judgment as to authenticity and credibility; the conjectural character of the historian's point of view as he constructs history from the inexact and patchy vestiges with which he works; the changing preconceptions or hypotheses (supernatural, great man, political, social, economic, and other explanatory theories), as knowledge of past events broadens; the necessity for making comparative and "objective" studies in so far as possible if the narrative is "to appear in its true perspective" as universal history.²

¹ Rice (ed.), *Methods in Social Science*, analysis 30.

² *Ibid.*, p. 445.

All this is excellent from the point of view of the historian as such. But for social science it is not enough. Pirenne himself gives the clue to the inadequacy, although he does not follow it up. All historical construction or narration, he says, rests upon the postulate "of the eternal identity of human nature." The historian assumes "he can treat the actions of the dead as he does those of the living who surround him."³ If that be true, is not at least part of the fundamental orientation for history, as for social science, to be sought in those eternal invariants of human nature? Where else is the proper "frame of reference" for past and present social events to be found?

Schevill strikes this deeper note in his superb portrayal of the methods and point of view of Voltaire, who in the eighteenth century emphasized the importance of man and his environment in the making of history.⁴ Beyond these essentials, Voltaire thought of historical narrative in terms of "literature, facts and philosophy."⁵ Employing a clear, witty, and sparkling style, and inspired by the naturalism of the physical-science developments of his day, he passionately fought the prevailing supernaturalism, minimized the influence of religion and politics in history, and stressed intellectual, social, and economic factors. Following him but disagreeing with him, the romantics placed their full faith in "historical continuity." Then in the nineteenth century the need was felt for "a richer and better-accredited corpus of facts," and the ancillary specialties of diplomacy, paleography, etc., took their rise. Today, with richer and better facts before us, there is a return to the spirit of Voltaire—a demand for a "new synthesis involving a new picture of the human whole."⁶

Many historical questions have to do with the problem of social change and causation. Here Voltaire had not made up his mind. "What can we say in conclusion," says Schevill, "but reaffirm that Voltaire had not thought this matter of causation through? Having broken with the Christian theory of a supernatural agent he launched our historical craft upon a disturbed sea of speculation, on which, in

³ *Ibid.*, p. 442.

⁴ *Ibid.*, analysis 29; also, Voltaire, *Oeuvres Complètes* (75 vols.; Paris, 1825-28), espec. *Essai sur l'Histoire Générale et sur les Moeurs et l'Esprit des Nations, Siècle de Louis XIV*, and *Histoire de Charles XII*, Vols. 19-24, 25-27, 30.

⁵ Rice (ed.), *Methods in Social Science*, p. 425.

⁶ *Ibid.*, pp. 430-431.

spite of the occasional cry of 'land' on the part of a passenger regularly found on investigation to be suffering from obstinate and confirmed astigmatism, it continues to toss irresolutely to this day."⁷

After Pirenne and Schevill, the rest of the casebook analyses on historical method seem to strike a somewhat minor, though not inharmonious, key. Six additional outstanding historical writers are dealt with. Michelet is shown as doing his work before the significance of economic and social factors was discerned. He lived in a period of transition; nevertheless, he perceived the influence of geography upon history, stressed philosophical implications, and believed in "the self-creative power of humanity."⁸ Renan, the historian of Christianity and Judaism, is exhibited as struggling between the two conflicting theories of great men and mass action as determining historical events. He carried on careful research with manuscripts, coins, and inscriptions, inspected historical places, and in general used to good effect then-existing criteria of authenticity and analogy. He tended to emphasize the influence of men, rather than the impact of races or classes, but felt that each race has a destiny and that humanity is motivated by a spiritual principle.⁹ Troeltsch, who attempted to treat historical movements (such as Christian civilization) sociologically and psychologically, emphasized the bearing of the qualitatively unique in social relations as against the quantitative methods of natural science.¹⁰ Below and Pirenne, in their important contributions on the origins of the medieval town, demonstrated the value of modern criteria as against earlier methods. They examined impartially four narrow and particularistic conceptions of town origins, which depended upon incomplete, relatively late sources, and, utilizing much broader and earlier material, rather conclusively established the mercantile character of such origins. Their more comprehensive theories stress the significance of economic and social factors in history and minimize the legal and the political.¹¹

⁷ *Ibid.*, p. 434. Cf., also, Frederick J. Teggart, *The Processes of History* (New Haven, 1918); *Theory of History* (New Haven, 1925).

⁸ Rice (ed.), *Methods in Social Science*, analysis 26.

⁹ *Ibid.*, analysis 27.

¹⁰ *Ibid.*, analysis 28.

¹¹ *Ibid.*, analysis 24; also, Georg von Below, "Zur Geschichte der Deutschen Stadtverfassung," *Jahrbücher für Nationalökonomie und Statistik*, Nov., 1915, pp. 651-662, and his *Probleme der Wirtschaftsgeschichte* (Tübingen, 1920); Henri Pirenne,

Two American historians are also included in the analyses. Turner, who was profoundly influenced by the natural sciences, centered his studies of the American frontier and the fundamental attitudes of the national mind, upon the idea of an "evolution" of cultural forms. In place of ultimate causes, he emphasized economic factors, human geography, statistical method, tentative conclusions, and forces that interplay in society.¹² Fay, in his *Origins of the World War*, demonstrated what a trained historian can accomplish in maintaining an impartial perspective in the utilization of a tremendous mass of material, much of it highly prejudicial and dealing with controversial issues. He used technical historical procedures with excellent effect, in avoiding the pitfalls of biased secondary sources and in sizing up, with extreme fairness, significant events from 1870 to 1914.¹³ His sources were thus in part contemporary, and his handling of them indicates that no student of society, whether dealing with current or past events, can afford to neglect historical tools of research. The social scientist must be well equipped with these as with the other procedures outlined.

SECTION 18. COMBINED USE OF SCIENTIFIC AND HISTORICAL TECHNIQUES

The combined use of scientific and historical procedures in significant social studies has been mentioned incidentally in connection with several of the casebook analyses already reviewed, as in Mitchell's work on business cycles. Two particularly pertinent examples will now be taken up, illustrating the difficulty as well as the necessity of maintaining a broad methodological perspective in comprehensive sociological research.

The first of these pertains to the work of Pareto, which the casebook analyst, Max Handman, outlines and evaluates to excellent effect so far as he goes.¹⁴ The present writer would go somewhat

Les Anciennes Démocraties des Pays-Bas (Paris, 1910), and his *Les Villes du Moyen Âge* (Brussels, 1927); Carl Stephenson, *Borough and Town* (Cambridge, 1933).

¹² Rice (ed.), *Methods in Social Science*, analysis 23; cf., also, B. F. Wright, Jr., "American Democracy and the Frontier," *Yale Review*, Winter, 1930, pp. 349-365.

¹³ Rice (ed.), *Methods in Social Science*, analysis 25.

¹⁴ *Ibid.*, analysis 7; also, Georges H. Bousequet, *Vilfredo Pareto: Sa Vie et son Œuvre* (Paris, 1928), p. 129; Vilfredo Pareto, *Traité de Sociologie Générale* (2 vols.;

further, for, to him, Pareto appears as the lineal methodological descendant of Francis Bacon, attempting by similar means to develop a new and one-sided school of thought, but at a time when the general occasion which gave point to the Baconian attempt has long since passed and in a way which fails to take account of "probably more effective schools of modern psycho-pathology" and of other more important procedures.¹⁵ Like Bacon, Pareto shows speculative power and imaginative insight, while at the same time discounting these faculties; he is passionate and ironic in his utterances, while demanding pure objectivity in others; he lays exclusive emphasis upon logic and induction and ridicules preconceived notions, while setting forth, without inductive proof, conceptions as metaphysical and a priori in character as any he criticizes.¹⁶ Whereas in one of his so-called "derivations," Pareto scoffs at the use of analogies (such as statics versus dynamics), or of "purely verbal manipulations," or of words with adopted connotations, he nevertheless borrows from physical mechanics most of his important concepts—action versus reaction, real and virtual motions, an equilibrium of forces—and, with respect to others, employs high-sounding terminology to portray common ideas that nevertheless remain vague and undefined.¹⁷ His formalistic logical symbols to represent familiar notions are in fact so subjective and hazy that almost any broad meaning can be assigned to them at will. For example, he endows man with certain instinctive forces, which he calls "residues," "and later on," says Sorokin, "derives from them whatever he likes."¹⁸

Paris, 1919); William McDougall, "Pareto as a Psychologist," *Journal of Social Philosophy*, Oct., 1935, pp. 36-52; and other articles on Pareto in the same issue by Carl Murchison, James H. Tufts, and Floyd N. House. McDougall and Murchison make an admirable exposé of the vagueness of Pareto's notions regarding "sentiments," "residues," "derivations," "interests," "dérivées," and "systems." Tufts contributes a penetrating analysis of Pareto's dislike for things "ethical." And House examines the significance of Pareto's concepts of a "social equilibrium" and the "non-logical." Cf., also, Ellsworth Faris, "An Estimate of Pareto," *American Journal of Sociology*, March, 1936, pp. 657-668; and George C. Homans and Charles P. Curtis, Jr., *An Introduction to Pareto* (New York, 1934).

¹⁵ Cf. Rice (ed.), *Methods in Social Science*, p. 153.

¹⁶ Cf. Mayer, *The Seven Seals of Science*, pp. 93-95.

¹⁷ Cf. Rice (ed.), *Methods in Social Science*, pp. 144-148; Sorokin, *Contemporary Sociological Theories*, pp. 37-62.

¹⁸ *Contemporary Sociological Theories*, p. 61.

Pareto resolves most of the complex individual and social problems that confront mankind into processes of mechanical action and reaction. He thinks in terms of bifurcate, antithetical, energy categories. To him the "residues" represent a group of human drives or dispositions making for nonlogical action, against which the "derivations" represent logical efforts to mask or hide the nonlogical drives. The "residues" he regards as six in number, conceived in terms of two antithetical pairs and two others. Stripped of formalistic titles, these are: (1) a disposition to combine or put together all kinds of things and ideas (compare Veblen's instinct of workmanship and Hume's association of ideas); (2) its opposite, "to refrain from tearing asunder" what has been put together (compare the inertia and persistence of habit and custom); (3) a disposition in people "to get together with others" and form groups (compare familiar ideas of gregariousness or consciousness of kind); (4) again, in antithesis, a tendency to preserve the collectivity or keep the social relations intact; (5) an inner necessity for external action or expression (apparently in general); (6) a disposition to act sexually. The "derivations" or tendencies to rationalize irrational behavior he thinks of as four in number: (1) simple or repeated affirmation; (2) authoritative utterance; (3) consensus of general opinion; (4) verbal manipulation, play on words or sentiments, and use of vague and indefinite terms. In these "derivations" Pareto follows Bacon's earlier suggestions almost slavishly and adds nothing from modern psychoanalytical researches, such as those of Freud, which have thrown so much light upon the nature of rationalization processes.¹⁹ As for his human-nature essentials (his "residues"), these may be further simplified in terms of tendencies to put things together and to get together, to keep things together and to stay together, to act and to act sexually, which ideas may be compared with the more rigorously derived "instincts" of McDougall or the four "wishes" or "desires" of Thomas and Znaniecki.²⁰

Pareto "feels" that there is in the nature of things some kind of individual and social "necessity for a state of equilibrium," which gives meaning to the action and reaction patterns represented in the "residues" and "derivations." Most important for "social equilib-

¹⁹ Mayer, *The Seven Seals of Science*, p. 101.

²⁰ See p. 46, above.

rium" is thought to be "a proper mixture of residues I and II"; in other words, of innovation and conservation, in terms of which common-sense phraseology his social-equilibrium pronouncement sounds rather platitudeous.²¹

Continuing our review of Handman's analysis, we see history take on, through Pareto's methodology, the aspect of a "succession of efforts to appear logical." With his vague and broadly bifurcate concepts in mind, Pareto combed the vast field of Western European history from 1870 to 1914 and "selected instances and illustrations on which his notions could be used as instruments." He found uniformities in historical material by seeking for them and locating examples to his liking. With other preconceptions, one might "find things precisely the opposite" and also by means of a similar "logico-experimental" approach. In conclusion, Handman speaks of the *Sociologie Générale* as a "monumental piece of work, monumental because of that very passion for a scientific approach which it does not reach and for the terrific blows it gives to the numerous preconceptions different from its own."²²

Pareto's work appears as an excellent illustration of the futility of attempting comprehensive studies of social phenomena without an adequate methodological perspective and without the essential tools for social research. His investigations were certainly aimed in the right direction. He endeavored to be scientific and to arrive at fundamentals. Such good intentions are important, but they may nevertheless do more harm than good; that is, unless the full significance of scientific method is appreciated, the theoretical along with the observational; unless the appropriate place of each significant instrument used in social study is clearly understood; and unless the most important techniques (as the psychological) are put first and subsidiary tools (as the physical and mathematical) are put where they belong. Pareto explored the social field with a one-sided appreciation of scientific method which rendered him purblind to his own presumptions while he criticized like presumptions in others; with apparently no knowledge of psychological procedures, he substituted formalistic mechan-

²¹ Rice (ed.), *Methods in Social Science*, pp. 144, 147.

²² *Ibid.*, pp. 151-153. Cf., also, Gladys M. Graham, "The Logics and the Social Sciences," and Wilson D. Wallis, "The Problems of an Empirical Sociology," *Social Forces*, Sept., 1928, pp. 24-32, 46-49.

ical concepts for more significant ones; and he depended for verification upon historical data without understanding the limitations and the criteria applying to such data. Like Fay, he dealt with historical material covering the period from 1870 to 1914, but he picked his cases to suit his purposes, whereas Fay handled the material dispassionately and with full knowledge of current historical methodology.

The other casebook analysis, mentioned at the beginning of this section as exemplifying the combined use of historical and scientific procedures in social study, is that pertaining to the work of Williams on rural attitudes.²³ This is a much less ambitious undertaking than the work of Pareto but, at the same time, probably more significant because of the careful utilization of known criteria. Williams made no pretense at being rigorously scientific, limited his studies to a small geographic area, and merely attempted a judicious combination of available historical and social-study techniques.

Williams's work is frankly preliminary and exploratory. For more than twenty-five years he has been in close touch with a small New York town, investigating its present and past population from 1825 on, studying its geographical and economic environment and the "attitudes" of the people toward such questions as the weather, family and sex relations, pioneer life, social and economic customs, religion and education. From our present-day point of vantage, it is possible to say that more rigorous biopsychological and geological techniques might be employed, further "genetic" and racial studies might be undertaken, additional methods of historical criticism might be used. These are important matters of detail. But much more important is the combination of procedures to which Williams's work points, especially his attempt to ascertain the attitudes and beliefs of people now gone, that is, through local documentary sources, through direct observation by the investigator, and through the oral testimony of old residents.

The first two of the procedures just mentioned require training in all the historical and scientific techniques reviewed in preceding pages. The third procedure suggests the need for developing a new social-science instrument, namely, for the taking of oral testimony. What

²³ Rice (ed.), *Methods in Social Science*, analysis 32; also, James M. Williams, *Our Rural Heritage: The Social Psychology of Rural Development* (New York, 1925).

methodology there exists in this respect is still very crude. Psychological aids are naturally indicated and are already being employed here and there in such study; so are judicial procedures indicated, with the courtroom atmosphere left out. Here is an almost virgin field for the deviser of techniques, to which we shall return presently.²⁴

In the preceding pages have been reviewed the scientific and historical relationships, techniques, and concepts which are being found useful in social study, whether in preliminary, exploratory, or more rigorous applications. Most of the casebook analyses concern themselves with such methods, forty-four out of fifty-two, thirty-five dealing with natural-science procedures and nine with historical. The relationship of social phenomena to the recognized sciences is taken up in two of the analyses; biopsychological studies into the fundamentals of human nature, in two; psychological and behavioristic instruments and techniques, in seven; the "genetic" approach to an understanding of existing social relations, in five; biogeological, prehistoric, and environmental approaches, in seven others; mathematical and statistical tools applicable to the social field, in eleven; purely historical techniques, in eight; and the utilization of combined historical and scientific procedures, in another two.

For social study, these methods, with the exception of the combination of techniques which should come first rather than last, seem to be important in about the order indicated, the historical and the mathematico-statistical being used most effectively in conjunction with the more significant social-science procedures mentioned. From among these, and others similar in nature, the student of society will ultimately, it would appear, select and develop those tools and concepts of most assistance in the building of a science of society. In addition, he will create other categories and methods that are distinctively his own. Complex social problems which, in resolution, may lead to the development of further basic concepts or techniques are taken up in the eight remaining casebook analyses.

²⁴ See pp. 72-74, below.

CHAPTER VI

SPECIAL SOCIAL SCIENCE CONCEPTS AND PROCEDURES

SECTION 19. SOCIAL CAUSATION AND LAW

ONE OF THE MOST significant problems for social theory concerns the question of social causation, which still remains where we left it with Schevill. Three additional casebook analyses throw interesting side lights upon this important issue.

From the point of view of the modern historian, Fay presents an illuminating review of Bury's study of the concept of progress.¹ The Greeks thought of a "fixed order in the universe," which man could not change. The Middle Ages substituted the idea of arbitrary acts of Providence for the fixed order. With the achievements of modern science, man's increasing control over physical nature brought with it the concept of human progress, to which the doctrine of evolution was at first thought to add corroboration, whereas in fact it appears to have little bearing upon it. If there is progress, Bury holds, it must be relative to time and place. But, if relative, adds Fay, another criterion of social judgment may some day come to displace it.

The point of view of the sociologist and anthropologist is presented in the discussion of Chapin's and Kroeber's study of cultural change, which discussion constitutes the longest analysis in the casebook.² As a preliminary, the analysts, Allport and Hartman, suggest four possible methodological concepts or levels, useful as approaches to an understanding of various phases of experience, including the cultural. First is the natural-science level, on which through analysis and "explicit denotation" the invariable sequences and predictable happenings of nature are discovered. Second is the "genetic" level,

¹ Rice (ed.), *Methods in Social Science*, analysis 20.

² *Ibid.*, analysis 22; also, Chapin, *Cultural Change*, and Alfred L. Kroeber, "On the Principle of Order in Civilization as Exemplified by Changes of Fashion," *American Anthropologist*, n.s., July-Sept., 1919, pp. 235-263.

on which is traced for purposes of explanatory generalization "the history or genetic development of the phenomena in question." Prediction here is less reliable, the analysts state, because of changing conditions and unusual situations. Third is the telic level, on which "the significance of the phenomena to the observer" is shown, that is, what they mean in human life. Here prediction is virtually impossible, for it would amount to invention; "explicit prediction would be the invention itself and hence its own fulfilment."³ Fourth is the stylistic level, on which the significance of the phenomena to the observer is limited merely to "formal or incidental changes" in man-made objects, that is, to changes which harmonize with our habits "of form, proportion, and balance." This level Kroeber calls the "superorganic"; and the analysts point out that here "prediction means simply reliance upon a fixed trend of events learned from past experience," each stylistic trend or cycle being a law unto itself, with no necessary significance with respect to other stylistic changes.⁴ Culture, the analysts continue, retains its identity only on the last three levels; if reduced to the first one by piecemeal analysis, it ceases to be a cultural object.

With some such series of prediction levels or approaches to human experience the present writer is in agreement, but there are certain unhappy designations used by the analysts which should if possible be clarified. (1) Since organic growth is natural, the "genetic" would seem to be part of the natural-science approach; hence the first level, which omits the organic, had better be called the "physical-science" level. (2) Since all generalization is explanatory and since this fact applies to physical as well as to biological science, explanation should not appear to be confined only to biology, as the casebook analysts seem to confine it in describing their second level. (3) Since "genetic" has a very definite biological natural-science meaning, it should not be made synonymous or be confused with "historical." (4) The "stylistic" is apparently only a special phase of the "telic." The present writer therefore suggests the following modified scheme of levels: first, the physical-science level; second, the organic or genetic level; third, the psychological level; fourth, the cultural or telic level (including the "historical" but not the "genetic"). These modifica-

³ Rice (ed.), *Methods in Social Science*, pp. 310-313.

⁴ *Ibid.*, p. 316.

tions in the analysts' methodological scheme of "levels" or frames of reference, with respect to prediction and cultural change, may be made without affecting their essential arguments and possibly with some avoidance of confusion.

Having outlined four methodological approaches to the problem of causation, the analysts proceed to measure Chapin's and Kroeber's studies against them. They immediately note that the authors apparently use physical-science principles in their assumptions. The view of Chapin and Kroeber of "an orderly and predictable sequence in culture" is thus seen to be taken at that level from which our notions of prediction are primarily derived but on which cultural phenomena cease to have meaning. "One cannot explicitly handle, or react to, cultural phenomena in such a manner as to reveal the way they behave independently of human beings; and one cannot analyze them into parts and describe the laws of action of those parts. As soon as such an attitude is taken, the object loses its cultural significance and we find we are investigating a different phenomenon, and one which tells us nothing about the behavior of the 'cultural' phenomenon."⁵

Regarding the difference between "laws" and "prediction" on the physical-science level and on the cultural level, the analysts continue: "It seems that many cultural phenomena are obeying laws of their own, thus limiting the very notion of scientific generalization. A plurality of laws of cultural change, with apparently no explanation beyond these laws themselves, is an unsatisfactory condition."⁶ More detailed criticism of some of the authors' assumptions is also presented by the analysts: for example, that a cultural complex is not an "organism"; that a mechanical invention or an institution is not a unitary thing but rather a number of things depending upon the human purposes being served; that one cannot add a number of subsidiary inventions together, since they are essentially heterogeneous and possess no common denominator; that neither the organic analogy nor an assumed societal learning process can explain Chapin's three-stage "societal reaction" pattern; that "superindividual principles" do not determine "cultural cycles" nor the course of social events. Summing up their criticisms, the analysts maintain: "The failure to

⁵ *Ibid.*, p. 345.

⁶ *Ibid.*, p. 347.

grasp the fundamental difference between natural-science and cultural material has led students of culture to advance certain hypotheses of doubtful value." Kroeber's "mystical notion of determinism," of superorganic forces or extrahuman powers, "is quite as hopeless for directing future research as the organic analogies of Chapin." The analysts prefer as working hypotheses, with respect to cultural objects and changes, the psychological and biological laws motivating "the human beings who invent and perfect such objects" and who are responsible for cultural development. Whatever special "laws" or cyclical changes a cultural complex may exhibit "upon its own abstract level," these should not be confused with natural-science laws.⁷

The difference between natural-science "laws" and cultural "laws" may be further illustrated by a third of the social-causation analyses. This outlines Bloomfield's and Sapir's concept of phonetic law.⁸ As Sapir expresses it: "Phonetic laws are by no means comparable to the laws of physics or chemistry or any other of the natural sciences. They are merely general statements of series of changes characteristic of a given language at a particular time. . . . Such phonetic laws have been worked out in great number for many Indo-European and Semitic languages." Such laws are found to exist, also, for primitive languages. "It may be pointed out in conclusion that the value to social science of such comparative study of languages . . . is that it emphasizes the extraordinary persistence in certain cases of complex *patterns* of cultural behavior regardless of the extreme variability of the content of such patterns. It is in virtue of pattern conservatism that it is often possible to foretell the exact form of a specific cultural phenomenon."⁹

Such preliminary attacks upon the complex problem of social causation indicate quite clearly that among the primary concepts with which social science must reckon are sufficiently comprehensive definitions of "causation" and "law."¹⁰ Two conceptions of "law"

⁷ *Ibid.*, pp. 348-349. Cf., also, pseudo analogies, chaps. xix and xx, below.

⁸ Rice (ed.), *Methods in Social Science*, analysis 21.

⁹ *Ibid.*, pp. 297-298, 306.

¹⁰ For some of the problems here involved see Morris R. Cohen, "The Social Sciences and the Natural Sciences," a chapter in *The Social Sciences*, ed. Ogburn and Goldenweiser, pp. 460-465; also Lawrence K. Frank, "Causation: An Episode in the History of Thought," *Journal of Philosophy*, Aug. 2, 1934, pp. 421-428.

have already been examined: first, the natural-science idea of a uniform, invariable, uncontrollable, and clearly predictable sequence of physical and biologic events, such as Kepler's law of planetary motion or the biologic law of recapitulation; second, the cultural concept of trends and cycles characteristic of given culture-patterns and institutions at particular places and times, persistent as a habit is persistent, but otherwise variable and unpredictable except in so far as they are deliberately man-made, to which extent they are "controllable," that is, "reformable."

A third notion of "law" is the legal conception of an ordinance, statute, code, or constitution, written or unwritten, expressive of the social will. This likewise receives consideration in the casebook.¹¹ Legal concepts, it is there stated, have come to be divided into positive and nonpositive aspects: the former thought of as including formal enactments, decrees, decisions, and rulings actually enforceable upon the people; the latter, social customs and traditions not yet formally recognized and enforced. Nonpositive "law" is thus the same as the mores.¹²

Time was when both positive and nonpositive "laws" were regarded as a part of "divine" or "natural" law, conceived in a priori fashion. The positivists, represented by Mattern (the casebook analyst), disavow any such approach; they hold, rather, that positive "laws" are deliberately man-made and vary considerably with place and time and with fallible human judgment, and that nonpositive "laws" or mores are "nothing but precedents and conventions established at a time when it was not customary" to write things down.¹³ This does not mean to the positivist that the mores are not founded upon a human disposition for justice, honor, and fair play, but merely that any a priori assumption of "the unity of the legal order" or of an eternal "international constitution," as presumed by Verdross, is wholly imaginative and out of harmony with modern scientific tendencies in the study of constitutional and international law and in an analysis of the realities of social life.

There are thus three different conceptions of "law," four prediction levels, and the idea of progress, which studies into social causation

¹¹ Rice (ed.), *Methods in Social Science*, analysis 6.

¹² Cf. pp. 44-45, above.

¹³ Rice (ed.), *Methods in Social Science*, p. 126.

and law are bringing to light and which the student of social-science methodology must take into particular account.

SECTION 20. PRECISE MEANINGS FOR SCIENCE AND BASIC CONCEPTS:
SOCIAL WORK, EVIDENTIAL TECHNIQUES, POLITICS

As already stated, "scientific method" is best thought of as a combination of verified observation and theoretical analysis, or, more briefly, as empiricism and rationalism. In this broad sense it is applicable to any realm of experience, including the social, although the proper balance between its dual aspects is not easily maintained. As for the meaning of "science," it is frequently assumed that any field to which the scientific method is applied becomes, *eo ipso*, a science. Such a deduction is without serious meaning. In the first place, to achieve the said result, the scientific method must be very rigorously applied.¹⁴ In the second place, this strict application must be logically adequate to the analysis of fundamental problems of human experience; otherwise "sciences" of ten-cent cigars, pewter soldiers, or mud pies are just as reasonable as any others.¹⁵ In the third place, "fundamental problems" not yet comprehended within the fields of the established empirical sciences (that is, within physics, astronomy, chemistry, geology, and biology) must be "compendent" with, or "structurally" and "genetically" related to, those fundamentals already recognized.¹⁶ Out of such new problems, when so related and constituted, there may develop "basic concepts" of new empirical sciences, as is thought by some to have already happened in psychology, and as Comte expected would some day happen in sociology.¹⁷ With these considerations in mind, the remaining case-book analyses may be the more readily appraised.

As to whether or not modern social casework is a science or is about to become one, a contention advanced in one of the analyses, little need be added to what has just been said. That the word "science"

¹⁴ Cf. chap. i, sec. 1, above; Michael and Adler, *Crime, Law, and Social Science*, pp. 56-63.

¹⁵ Cf. Rice (ed.), *Methods in Social Science*, p. 703, with Sorokin, *Contemporary Sociological Theories*, pp. 80-81.

¹⁶ Cf. pp. 5-12, above.

¹⁷ The foregoing discussion has no bearing upon so-called "applied sciences," such as engineering.

is often loosely employed, and that medicine is sometimes referred to as a science, is of course common knowledge, but that such lay usages should be regarded as proper bases for serious analysis is an entirely different matter.¹⁸ As for social case records and concepts, they have in recent years assuredly become much more comprehensive and adequate with respect to meeting the practical problems of personal maladjustment in "pacific Western society"; but the professional social worker is apparently still falling short of making fundamental contributions to an understanding of the basic variables of human nature and culture. One looks in vain among the items of "current personal data" records for anything even remotely resembling thoroughgoing physical and mental examinations and psychological tests to determine the relative strength of prepotent drives or of other fundamentals characterizing maladjusted individuals.¹⁹

These observations pertain primarily to the points of view of average professional social workers, to the results of their recurrent conferences on social work, and to the personal comments of the case-book analyst, Philip Klein, who essays to review Miss Richmond's important volume, *Social Diagnosis*.

Miss Richmond's book marks a distinct advance in several directions. One is the author's effort to find a comprehensive unifying concept (in place of such terms as "sick," "poor," "delinquent," "feeble-minded," "unemployed") for the designation of any type of socially maladjusted or unadjusted individual, although the combination of her selected legal notion of "client" with a medical analogy would seem to be somewhat unfortunate and a better designation will doubtless be found. Another and still more important advance is her painstaking attempt to codify present practices among social workers with respect to "the collection of evidence and the drawing of inferences therefrom" and her endeavor to point the way to improvements.²⁰ Here her work treats of such subjects as the nature of evidence, the processes of obtaining evidence, sources of evidence, variations or special conditions determining the selection of evidence, the difference between real, testimonial, and circumstantial evidence,

¹⁸ Rice (ed.), *Methods in Social Science*, analysis 4.

¹⁹ *Ibid.*, pp. 98-108.

²⁰ Mary E. Richmond, *Social Diagnosis* (New York, 1917), p. 28. Cf., also, Pauline V. Young, *Interviewing in Social Work* (New York, 1935).

the competence and bias of witnesses, and the like—a truly notable beginning of what, in the opinion of the present writer, should some day become as much a disciplined set of procedures as is the historical or the statistical.

To the development of rigorous evidential techniques, the professional social worker can surely contribute, especially on the side of the taking of oral testimony, if, in the spirit of Miss Richmond's work, he will learn to look beyond his immediate pragmatic task to sociological fundamentals. Other specialized disciplines will likewise need to lend a hand, and in a similar spirit. Social evidence has its legal side, its judicial side, its historical side, its psychological side, its political side, illustrated in one way or another in almost any worth-while social investigation that might be named.

The casebook analyses show the need for reliable evidential procedures in a number of instances, as excellent an example as any being the work of Bryce in the field of politics.²¹ Bryce long participated actively in public affairs and he well knew how to make use of documentary evidence, both of which circumstances he specified as important aids for political understanding. He did not mention, however, "the technique in which he so remarkably excelled, the technique of interrogation and of field observation."²² "It may well be asked," wrote a competent critic of the writings of Bryce, "whether since the days of antiquity there has been any important historical work written so largely from the talk of living men."²³ Bryce's failure to mention the fact-gathering instrument upon which he relied so extensively and in the use of which he was such a past master, is significant as indicating that in 1921, when he published his *Modern Democracies*, evidential procedures in politics were still largely intuitive. Bryce was rather cautious and extremely self-critical, which characteristics, together with his wide experience and intimate knowledge, probably account for the scholarly vogue his publications have secured. He was pessimistic about politics ever becoming a science, but he thought his methods were sufficiently strict for a pragmatic discipline. Nevertheless, his definitions are ambiguous, the criteria

²¹ Rice (ed.), *Methods in Social Science*, analysis 33; also, James Bryce, *Modern Democracies* (2 vols.; New York, 1921).

²² Rice (ed.), *Methods in Social Science*, p. 468.

²³ *Ibid.*, p. 470, quoted from Herbert A. L. Fisher.

he used remain without "theoretical justification," and his terminology "has often been criticized as more confusing than enlightening."²⁴ Lasswell, who analyzes Bryce's work in the casebook, disagrees with the view that political terminology and technique are already about as scientific as one can hope for. To a further consideration of these questions, in another of the casebook analyses, we now turn.

The next analysis is entitled "The Possibility of a Science of Politics." In an able manner it brings to the fore additional issues bearing upon the meaning of "science" and "basic variables," applicable not only to the field of politics but to all social disciplines.²⁵ At the outset two factors are pointed to, the historical and the normative, which distinguish politics and the rest of the social studies from the physical and biological sciences and which are usually presented as grounds for denying the possibility of turning social study into social science. History deals with particular and unrepeatable events, whereas the sciences deal with universals; normative elements are subjective valuations which "cannot be measured or demonstrated."²⁶ In respect to these assertions the present writer would say: first, that in so far as social study depends primarily upon history it cannot become in any true sense scientific, but that in so far as its primary dependence is upon current social manifestations of the basic traits of human nature, and historical data are regarded as wholly subsidiary, there is no apparent reason why it cannot be organized into a science; secondly, that there is no real occasion for pessimism about the "measurability" or "demonstrability" of human values, since modern psychological techniques, as already indicated, are taking these matters definitely in hand, although the results are still meager and inadequate.

The analyst, W. Y. Elliott, presents the views of two opposing groups among contemporary students of political phenomena—that of the political philosophers, who regard politics as an art rather than a science, and that of the political fact-gatherers, who follow Baconian methods and fancy they can fashion a science of politics upon physical-science precepts. Elliott contributes an able criticism of the use of mechanical and biological analogies in politics, such as theories of the pendulum, of the cyclical degeneration of governments, and of

²⁴ *Ibid.*, pp. 474-478.

²⁵ *Ibid.*, analysis 3.

²⁶ *Ibid.*, p. 70.

the "organic" birth and death of civilizations; and, up to a certain point, his analysis of the meaning of "science" is likewise penetrating. It is quite true that in the sense of "an objective description of observable and describable external characteristics of human behavior, there are at least as good grounds for calling politics a science" as there are for calling any of the other social studies sciences.²⁷ But, as suggested above, such grounds, even though rigorously conceived, are not enough; there must be logical adequacy and a commerce with essential variables. On these further grounds, the most important immediate question is whether the problems with which politics now concerns itself are fundamental in human nature and culture, not whether they are merely "observable and describable" behavior characteristics of one kind or another.

Elliott's conception of politics, as a combination of fact-gathering and philosophy, would seem to provide an excellent illustration of the best that may be said for any of the specialized social studies as at present constituted, that is, before the basic categories of human nature and of social relations have been definitely formulated. Politics, he holds, "does not submit itself to rigid deterministic laws because men are purposive and morally creative beings"; in this field, prediction and experimental verification are not to be anticipated; as a mere classificatory and descriptive discipline, "it can hardly go beyond the state of botany in the days of Linnaeus"; it must select for investigation such pragmatic units as the "state," certain political "pressure groups," "political myths," etc.; "the results will be too complex to permit statement as *laws* in any way analogous to the laws of physics"; but such results will at least provide "interesting leads," if not "complete scientific analyses." In short, politics is an attempt "to understand the whole complex of forces that affect government by men under institutions, laws, and organized force," to study "the behavior of groups when the groups have become highly institutionalized, . . . to evaluate the ends of government" in terms of "an ideal scale of values," to classify political movements, and to arrive at "rough laws." Politics would thus seem to be an art and an applied discipline of a pragmatic nature, not as yet to be grouped with the recognized sciences. Nor should the other special-

²⁷ *Ibid.*, p. 80.

ized social studies, such as economics, be so grouped at the present time.²⁸

One thing Elliott indicates should most decidedly not be attempted in the field of politics, namely, to abstract a "political man out of the total context of human activity," as Catlin attempts to do in his effort to match the "economic man" of the classical economists. Such methods are now "thoroughly suspect."²⁹ Human nature is simply not composed of watertight compartments made up of a political man, an economic man, a family man, a legal man, an historical man, an ethical man, and other varieties, all packed together like a juggler's nest of boxes. The primal dispositions of men cut across such fictitious categories, and a true scientific understanding of social relations will likewise cut across them.

It would thus seem evident that those interested in formulating a social science will need first of all to employ definitions of science and of basic concepts which conform to the meanings assigned to these terms in the recognized sciences; then they will need to formulate basic social categories in accord with these definitions. Such basic categories, when found, will be among their most important methodological tools. Another indispensable social-science instrument appears to be an evidential technique competent to serve as a scientific observational procedure for the collection of social facts.

SECTION 21. SOCIAL PRECONCEPTIONS: ECONOMIC UTILITY AND VALUE

Innumerable misconceptions exist in present-day social study to hamper progress. The character and scope of these have recently been analyzed in some detail.³⁰ In the present volume, as in Parts II and III, we shall be concerned with economic misconceptions primarily, while here we are confining ourselves to such misconceptions as appear in the remaining casebook analyses.

As a preliminary, a pragmatic distinction between misconceptions and preconceptions may be drawn. Among the former might be listed certain current ideas which represent exaggerations, wrong emphases, or crude patterns of thought, reflecting a prevailing mode that

²⁸ *Ibid.*, pp. 79-87.

²⁹ *Ibid.*, pp. 82-83.

³⁰ Cf. Sorokin, *Contemporary Sociological Theories*; Mayer, *The Seven Seals of Science*, pp. 389-430; chap. i, secs. 2-4, above.

SOCIAL SCIENCE CONCEPTS

soon disappears and carries away with it most of the dependent misconceptions. Such probably are the current mechanistic and behavioristic emphases in social study, or, possibly, the "residues" and "derivations" of Pareto. Misconceptions, thus viewed, are more or less self-liquidating. Among the preconceptions, on the other hand, might be listed those persisting misconceptions that survive over a long period of time. Having as a rule received the stamp of authoritative approval when projected, these by a process of subtle sophistry are reformulated or modified to meet recurring criticisms, until succeeding definitions become progressively more vague and ambiguous; and thus errors continue to be accepted, largely through reiteration and force of custom. These established preconceptions are the greater stumbling blocks to constructive advance, and to remove them has sometimes required centuries of effort. Among them the present writer would place political and economic "men."

Probably in no other specialized social field have preconceptions taken a deeper hold than in economics, doubtless because this discipline became systematized somewhat earlier than others and because the prevailing notions at the time—hedonism, forces in mechanical equilibrium, homogeneous units of measurement—were admirably adapted to place a money calculus and human motives on the same apparent plane. The cornerstone of this structure of economic preconceptions, surviving to the present day despite its now clearly fallacious psychological and physical-science underpinning, is the classical theory of economic value, with its subsidiary notions of utility and disutility. These dogmas are touched upon in two of the casebook analyses still to be examined. The question of "value" will confront us constantly in the following pages, so that it will be helpful to give more than passing attention to it here.³¹

One of the remaining casebook analyses is by Frank Knight on the work of Jevons and others, the argument concerning itself largely with certain relatively recent misconceptions in economic theory—physical-science and behavioristic assumptions already touched upon in preceding pages.³² Knight canvasses three notions which are often

³¹ Cf. statement by Elliott, in Rice (ed.), *Methods in Social Science*, p. 91, that politics must deal "with values in an ideal scale."

³² Rice (ed.), *Methods in Social Science*, analysis 2, and William S. Jevons, *The Theory of Political Economy* (4th ed.; New York, 1924); also, other writings by Frank

confused in current value discussions. First is the assumption that physical science deals entirely with readily observable facts and that subjective implications are nowhere in evidence. Yet, as he points out, many physical operations (such as molecular movements) are not directly observable, and hypothetical concepts and generalizations (such as the ether, radiant energy, and spatial curvature) are widely used. "In the twentieth century," he adds, "it is not the physicist but psychologists and sociologists who accept a physical interpretation of nature." Second is the false idea that it is possible to build up a factual economics without explanatory features, as is being attempted by extremists in the commodity-statistics, index-numbers, and price-economics movements. Commodities, he maintains, should not be conceived in terms of physical entities but in terms of the human services or satisfactions they render. "There is no such thing," for instance, "as an objective average of prices," for subjective implications cannot be left out. It is the *meaning* that prices have for human beings and the *motives or purposes* that lie behind human behavior that are the important considerations. Third is the assumption by many (who would be in agreement with Knight's criticism up to this point) that in social study, as in natural science, one can avoid ethical or normative implications. Explanation, Knight holds, is not enough, for practical policies and desirable human ends cannot be escaped in social and economic theory; and this fact means standards of ethical comparison and evaluation.

With Knight's penetrating criticism of these three current misconceptions in economic theory, the point of view presented in preceding pages is in complete accord. Where this criticism, however, is used by Knight as an ostensible offensive to cover up or to bolster an actual defense of classical preconceptions concerning the notion of economic utility (and proceeding largely after the manner of strong reiteration and occasional *non-sequiturs*), it is quite out of harmony

Knight, which pay lip-service to scientific and philosophic fundamentals without in reality leading to a clearer understanding of these fundamentals as applied to economics, espec. "The Limitations of Scientific Method in Economics," in *The Trend of Economics*, ed. Tugwell (New York, 1924), pp. 229-267, 489, for additional references. Cf., also, discussion regarding subjective-objective relation in chap. iii, above, and further analysis of utility theory, chaps. xiii and xiv, below.

with that point of view; in fact, it is in complete disagreement with it.

As for the actual meaning of economic utility, very little is vouch-safed us in Knight's analysis. We are told: (1) that utility is "that which' men act in order to get and to maximize"; (2) that it is "sim-ply the universal principle of motivation quantitatively conceived" (universal in anticipation though not always actually realized in fact); (3) that whether it is to be identified with pleasure "is an issue properly outside the field of economics"; (4) that it results in "satis-faction"; (5) that it is an explanatory concept "more or less closely analogous to force in physics" and thus may be used "to explain behavior"; (6) that the idea of real value "most obstinately ad-heres" to it. The first version of the concept thus defined informs us that utility is an objective end; the second, that it is a subjective motive, in some way quantitative; the third suggests that as an end it might be "pleasure"; the fourth, that the end is "satisfaction"; the fifth version renders it a subjective motive once again; and the sixth is uncertain in this respect but suggests qualitative rather than quan-titative distinctions. We gather, then, that the concept in question is both subjective means and objective end, that it is quantitatively measurable, yet serves as a qualitative norm or standard, and that whether viewed as means or end it may be identified with "satisfac-tion" and possibly with "pleasure."

Other general ideas besides "utility," however, will also fit this hazy definition. If pleasure or satisfaction is to be regarded as a motivating force, it must be so regarded in some vague anticipatory sense. In this sense, "life" (or "the will to live"), and "money" like-wise conform to the definition. Life or money may be thought of as "that which" men wish to maximize; the will to live or money be-comes, in contemplation, a universal motivating force; it results in satisfaction, although (as with utility) not always; it explains human behavior; it has value most obstinately adhering to it; and it is quan-titative as to time or amount. Possibly "money" fits the definition best of all. The first count, therefore, against the concept in question is its vagueness and ambiguity.

If construed as economic utility, a second count against the con-cept is that, in any realistic sense, it cannot be quantitatively homo-geneous in character, a fact clearly indicated by Charles E. Persons

in an historic analysis.³³ A third count is that it continues to be based upon an outmoded psychology, incurably hedonistic and rationalistic, whereas instinctive drives, dispositions, interests, or desires (which McDougall and Thomas-Znaniecki found to be the motivating forces behind human action) are for the most part impulsively irrational.³⁴ A fourth count is that, as actually employed in economic reasoning, the concept "utility" carries with it at least two of the three current misconceptions against which Knight contends. Thus in his analysis economic and broader human valuations are confused.

This confusion is admirably portrayed and clarified in the writings of Hobson, reviewed in the remaining casebook analysis.³⁵ In economics, Hobson points out, "utility" attaches itself to consumable goods of every variety, that is, to the gratification of economic wants; humanistically, it means vital usefulness exclusively, or that which makes for human welfare. In economics, "cost" or "disutility" merely signifies "productive" effort of any kind; humanistically, it connotes anything that militates against human welfare. Thus, in economics, "utility" attaches to all consumption; "disutility," to all production; whereas, humanistically (in making for human welfare, pleasure, or satisfaction), no such line of demarcation can be drawn.

On the side of consumption, three important factors are here to be considered: organic needs, commercial pressure, and social prestige. Only those goods and services satisfying organic needs should be regarded as always possessing human utility. Where commercial pressure through misleading advertising and where a craze for social position result in harmful or distorted cravings and conspicuous waste, human disutility is the outcome.

On the side of production, the work of the scholar, the scientist, or the artist has much of pleasurable satisfaction or human utility in

³³ "Marginal Utility and Marginal Disutility as Ultimate Standards of Value," *Quarterly Journal of Economics*, Aug., 1913, pp. 547-578.

³⁴ Cf. chaps. vii, xvi, and xvii, below.

³⁵ Rice (ed.), *Methods in Social Science*, analysis 35. Cf., p. 48, above; also, H. C. Overstreet, "Conventional Economics and Human Valuation," *Journal of Philosophical, Psychological, and Scientific Method*, May, 1915, pp. 281-282; Walton H. Hamilton, "Economic Theory and Social Reform," *Journal of Political Economy*, June, 1915, pp. 562-584; Paul T. Homan, *Contemporary Economic Thought* (New York, 1928), pp. 281-374; Talcott Parsons, "Sociological Elements in Economic Thought," *Quarterly Journal of Economics*, May, 1935, pp. 414-453; Aug., 1935, pp. 646-667.

it; only at the lower end of the scale of routine work, where there is fatigue or monotony, do we uniformly find human cost or disutility. Similarly with saving or "waiting": the rich save automatically; the middle class, with forethought and self-control; the poor, with difficulty and sacrifice. Solely with the poor should saving or waiting be regarded as colored always with disutility.

A humanized body of economic doctrine would, therefore, be based entirely upon fundamental human needs, regarding the satisfaction of these alone as possessing "utility," all else as possessing "disutility." Thus the principle of maximizing utility while minimizing disutility or cost would seem to have a clear-cut meaning only in terms of human welfare. ("Maximizing consumption and minimizing production" simply does not make sense.) By the same token, in economics "value" is taken to mean merely "the power of a good to command other goods in exchange," so that, if a worth-while book and a burglar's jimmy each cost a dollar, they are equally "valuable"; whereas humanistically, the book is evidently greater in value. Thus the concept "value" might better be viewed, says Hobson, as a balance of human utilities against human costs, in terms of the best ordering of human interests and welfare.³⁶

This, in brief, is Hobson's appraisal of utility and value, economically and humanistically conceived. In its light, Knight's arguments take on added implications. If, as Knight holds, the actual motives and purposes behind human behavior and their ethical and normative connotations are important in economics as elsewhere in social study, then he must apparently cease viewing "utility" in classical economic terms exclusively, for his definition of "utility" is broad enough to include the humanistic interpretation. But should he agree to this broader view, the prelude to his casebook analysis and the arguments about "marginal utility" theory which it implies, would no longer seem to have meaning. In short, in the light of Hobson's distinctions, Knight should either accept two of the three current misconceptions he criticizes or else abandon the production-consumption basis upon which marginal-utility reasoning rests.³⁷

³⁶ Cf. chaps. xxiv and xxv, below, on comparative value.

³⁷ Cf. Rice (ed.), *Methods in Social Science*, p. 59: The argument on this page in the casebook construes "utility" in formalistic economic terms; for the rest of Knight's analysis, the interpretation of the concept is chiefly humanistic.

Surely, as Knight says, "some terminology should be adopted" in scientific social study which will truly represent "the actual desires of individuals."³⁸ We have already indicated in preceding pages the steps that must apparently be taken: the concepts formulated must reflect human-nature fundamentals; they must be rigorously conceived; they must be logically adequate; and they must be "genetically" and "structurally" related to the primary variables of those sciences, psychology and biology, which are nearest of kin to social activity. No deceptive, handed-down imponderable, encrusted with hoary misconceptions and superrefined until like the chameleon it takes on colorings to suit the occasion, can serve the purpose of a basic social category. To the present writer, the classical dogmas surrounding the ideas of economic utility and value are among the most stifling preconceptions with which students of social phenomena have had to contend.³⁹ The three current misconceptions reviewed by Knight are as nothing compared with these older preconceptions and merely represent a reaction with respect to them. If it was important to clear away ancient effluvium in the study of electricity and magnetism, it is at least as important to clear it away in economics—a task of no mean dimensions considering the depth of most social prejudices.

SECTION 22. SUMMARY AND CONCLUSION REGARDING SOCIAL SCIENCE METHODOLOGY

Our review of the casebook studies is completed. What it indicates with respect to the most approved present-day methods and concepts used by students of social behavior may now be epitomized as follows:

(a) Social science, when it arrives, must be "structurally" and "genetically" related to the already recognized sciences, as Comte indicated, especially to psychology and biology, which are nearest of kin; and until the basic variables of human nature are established, social study is bound to be enmeshed by a "sterile and encumbering mass of irrational special discussions." The casebook analyses show

³⁸ Rice (ed.), *Methods in Social Science*, p. 69.

³⁹ Cf. Jacob H. Hollander, "Economic Theorizing and Scientific Progress," *American Economic Review*, March, 1916, pp. 124-139. Hollander's criticism, written nearly twenty-five years ago, would seem to hold about as much now as it did then.

that many of the social investigations now being carried on are still of a highly preliminary, superficial, or exploratory character.

(b) Psychology and biology are at present in process of providing the necessary fundamentals for social study, as in the work of McDougall on primal instincts, and are fashioning various tools and techniques of particular usefulness, especially the self-observational procedures for studying higher mental processes being worked out in the Würzburg laboratory and by the followers of Ebbinghaus.

(c) "Genetic" studies of existing social relations are also important for the building of social science, as in Sumner's work on folkways and mores, the investigations of Thomas and Znaniecki on the social attitudes of Polish immigrants, and the studies of Malinowski and Boas on family, tribal, racial, and folk-lore antecedents.

(d) Biological and geological methods are likewise proving of assistance in reconstructing prehistoric cultures and indicating the conditioning role of natural environment, as in stratigraphic and archeological researches, in Wissler's studies of the cultures of primitive peoples, and in Ezekiel's work in agricultural economics.

(e) Mathematico-statistical techniques are being found increasingly helpful in the handling of social facts, as in Moore's work on the demand function and in the present widespread use of statistical devices, although these sometimes tend to be regarded as ends in themselves rather than as means only. Mitchell's study of business cycles affords probably the best example thus far of the effective application of statistical aids.

(f) Besides the social-science techniques developed by the scientific disciplines, historical procedures are important (as in documentary criticism and criteria of authenticity and credibility) for the resurrection and proper understanding of what vestiges of past social events are still existent. Pirenne and Schevill provide exceptionally illuminating analyses in this connection.

(g) Unless a broad methodological perspective in social study is maintained and scientific and historical procedures are properly combined, the best-intentioned investigator, as, for example, Pareto, is likely to go astray.

(h) In addition to utilizing instruments and categories developed by history and the recognized sciences, the student of society is devel-

oping specialized concepts and methods of his own, as in the idea of progress, in various significances discovered with respect to the notions of law and levels of prediction, in more inclusive and rigorous meanings for science and basic variables, and in the appreciation of the need for developing a rigorous evidential technique.

(i) Inherited preconceptions imbued with sophistry, such as the notions of economic and political "men" and the idea of economic "utility," must be swept away in social study just as similar preconceptions have been swept away in the recognized sciences, before constructive advance in the social disciplines can be assured.

Earlier in these chapters a brief outline was presented of what the history of the recognized sciences demonstrates as necessary steps to be taken in the organization of a new science. With the material in the casebook rearranged as indicated in the last three chapters and evaluated in the light of important considerations advanced in the history of science, there appears to be every reason to believe that present-day methodology in the social studies is developing in a consistent and constructive manner and that Comte's prediction of a science of society will be ultimately fulfilled. Important next steps would seem to be: to determine upon the primary categories of human nature and social relations; to formulate adequate evidential procedures to serve as necessary observational techniques for social study; to achieve a proper methodological perspective in whatever researches are undertaken; and to eliminate existing preconceptions that hamper progress.⁴⁰

⁴⁰ The point of view presented in these chapters may be compared with the methodological classifications outlined in the following references: Bentley, *Behavior, Knowledge, Fact*; Ernest W. Burgess, "The Trend of Sociological Research," *Journal of Applied Sociology*, Jan.-Feb., 1924, pp. 131-140; Charles A. Ellwood, "Scientific Methods of Studying Human Society," *Journal of Social Forces*, March, 1924, pp. 328-332; Floyd N. House, "General Methodology," *Publications of the American Sociological Society*, XXI (1927), 171-172; Wladyslaw M. Kozlouski, "The Logic of Sociology," *American Journal of Sociology*, May, 1928, pp. 914-915; George A. Lundberg, *Trends in American Sociology* (New York, 1929), pp. 408-416. For a history of methodology in social study, see Luther L. Bernard, "The Development of Methods in Sociology," *The Monist*, April, 1928, pp. 292-320.

PART II

CLASSICAL COST AND UTILITY THEORY

CHAPTER VII

PSEUDOSCIENTIFIC METHOD IN ECONOMICS

SECTION 23. A SEEING IMPASSE IN ECONOMIC VALUE THEORY

NOT LONG AGO it was stated with some emphasis that a seeming impasse in economic value theory has been reached, that the systems and points of view of five leading contemporary Anglo-American economists, considered representative and outstanding in England and the United States, are thoroughly bewildering in their contradictions and lack of concordance, and that no way out is in sight. These reflections followed a brilliant exposition by Paul Homan of the economic doctrines of John Bates Clark, Thorstein Veblen, Alfred Marshall, John A. Hobson, and Wesley C. Mitchell, in which were presented with keen analysis and fertile suggestiveness the outstanding features of, and the criticisms urged against, each of the systems of these leaders of modern economic thought, the reader being left in the end to make his own choice among them.¹

Such a position would seem to ascribe to all outstanding and representative economic systems and points of view an equal validity, apparently for no other reason than that they are outstanding and representative, and would seem to omit application of the acid test of verification and experiment to separate the scientific from the purely speculative in the methods employed and in the conclusions reached. On the face of things, if such a procedure is adopted, one may indeed picture most economists as groping about in a blind alley. The way out, if there is one, is assuredly the path pursued by other pioneers of thought in shaking off the incubus of pseudoscientific method in the course of the development of their disciplines: by the geometers of ancient Greece who, following the rigorous analyses of Plato and Aristotle, freed themselves from Pythagorean mysticism in establishing the system of Euclid; by William Gilbert, who

¹ Homan, *Contemporary Economic Thought*, pp. 439-468, and "Issues in Economic Theory," *Quarterly Journal of Economics*, May, 1928, pp. 333-365.

much later proved by painstaking experiment that neither goats' blood nor garlic had anything to do with the phenomena of magnetism; by Francis Bacon, who pleaded with his contemporaries to cease spinning "laborous webs of learning" out of "no great quantity of matter" and to test their ideas against the actual facts of experience; by Robert Boyle, who urged students of chemistry to write plainly and unostentatiously about their experiments and thereby "keep men from being stunned," as it were, or imposed upon by dark and empty words." If an impasse has been reached in economic value theory, it is not wholly unwarranted to suggest that economics today may be in a position similar to that of mathematics in the days of Pythagoras, of physics in the days of Gilbert, or of chemistry in the days of Bacon and Boyle. These sciences have passed their periods of impasse and are making steady headway because they have learned to distinguish the scientific from the pseudoscientific, to regard hypotheses as tentative and of no existential worth unless or until verified, and to eschew dogma of whatever variety.²

Reflections of this character, it should be added, are meant to apply mainly to classical value theory, and not to more recently constituted "pure theory," with its mathematico-statistical analyses of such concrete phenomena as supply and demand; price movements, taxes, and tariffs; interest, capital, and income; purchasing power and money.³ Important current advances in economic methodology have been made in just such applications—in curve fitting, correlation, probability, and the like—so admirably summarized by Irving Fisher in his address before the American Association for the Advancement of Science in December, 1929. As has already been indicated in Part I, however, this is but a part of a much wider contemporary movement to perfect suitable tools and methods for social study.⁴

² Cf. Mayer, *The Seven Seals of Science*, pp. 3-142.

³ Cf. chaps. xxix-xxxiii, below.

⁴ Cf. Irving Fisher, "The Application of Mathematics to the Social Sciences," *Bulletin of the American Mathematical Society*, April, 1930, pp. 225-243; also, articles by Arthur F. Bentley, entitled "Sociology and Mathematics," *Sociological Review*, London, July and Oct., 1931, pp. 85-107, 149-172; and Mitchell, "Quantitative Analysis in Economic Theory," pp. 1-12.

It is fortunately becoming less necessary these days to deny the validity of the old contention that the methods of social study cannot fairly be compared with those of physical science because of the greater difficulty of measuring social theories against social facts. The organization of bodies like the Econometric Society, with its purpose to apply to economic theory "constructive and rigorous thinking similar to that which has come to dominate in the natural sciences," is a proffered answer to this contention. Whatever truth there once was in the old defense of dogmatic procedure in economics is fast being dissipated in the present century with the development of appropriate social-science tools and techniques and with the better understanding now possible (through advances in archaeology, anthropology, social psychology, and sociology) of the actual functioning of past and present societies. With improved methods and knowledge, the beginnings of more substantial results are already apparent, as, for example, in the excellent contributions by contemporary students to a better understanding of business cycles and the behavior of prices.⁵

Inductive advances of this character are to a large extent fundamental and should sooner or later of their own momentum help blast away any theoretical impasse. At the same time, the day of liberation may be considerably hastened by a renewed examination of the various assumptions underlying generally accepted economic doctrine, in the light of rigorous logic and modern sociopsychological knowledge, to the end that what is fallacious therein may be definitely discarded.

After a number of years spent in such an examination, the present writer is convinced that much of what still passes for recognized cost and utility theory is honeycombed with pseudoscientific reasoning and sophistry. No economist can help theorizing with respect to value, whether he does it unconsciously or deliberately; so that, if

⁵ Cf. Evans, *Mathematical Introduction to Economics*, and recent articles, mentioned in his Appendix I, by Bowley, Edgeworth, Evans, Fisher, Hotelling, Moore, Roos, Schultz, *et al.*; Wesley C. Mitchell, *Business Cycles: The Problem and Its Setting* (New York, 1928), and other volumes (espec. *The Behavior of Prices*, by Frederick C. Mills) published by the National Bureau; Irving Fisher, *The Making of Index Numbers* (Boston, 1922).

the aforementioned presumption is correct, the danger is ever present of unwittingly using and passing on to younger generations of economists the subtle fallacies of classical and neoclassical dialectic.

The strange thing is that these fallacies have long since in one way or another been shown in their true colors. The economic literature of the past half century contains many acute refutations of false analogies, hasty generalizations, and unwarranted assumptions.⁶ And yet they continue to reappear. One reason why it seems so difficult to keep pseudoscientific ghosts laid, in addition to the support they often receive from the pre-eminent position held by great thinkers of the past who helped propagate them, is that the refutations have as a rule been made in piecemeal fashion and have often merely lent color to one questionable dogma while excoriating another. A broad scientific outlook and an adequate knowledge of appropriate procedures thus appear to be essential to constructive economic advance.

Before Adam Smith and from his period down to our own time, there have been giants of thought among the economists, and present-day followers are justly proud of past accomplishments. But knowledge of scientific fundamentals was much more meager one hundred to one hundred and fifty years ago than it is in our own day, and it is therefore no disparagement to point out in what respect old hypotheses are crude or inadequate in the light of present understanding. In moving toward scientific maturity, other disciplines have passed through a process of rigorous scrutiny of handed-down conceptions, and there seems to be no legitimate reason why political economy or any other social study should be regarded as an exception.

There is still too much dependence upon the authority of past utterances in economics, whereas no such situation maintains today in the physical or biological sciences. Theories once seriously held by Pythagoras, Aristotle, Euclid, Ptolemy, Galen, Linnaeus, Newton, and other outstanding thinkers in recognized scientific fields, have been utterly discarded or greatly modified without disturbing the places their proponents occupy in history. Science has, in fact,

⁶ Cf. *Quarterly Journal of Economics*, *Journal of Political Economy*, *Economic Journal*, *American Economic Review*, and *Annals of the American Academy of Political and Social Science*, espec. references given below.

advanced to a large extent in proportion as it has learned to profit by the mistakes of its important benefactors. It was only as this lesson was generally appreciated after the Middle Ages that the scientific renaissance became possible.

The picture presented by Homan of contemporary disagreements in economic theory leading up to what appears to be an impasse, is well worth pondering. He raises a number of extremely significant questions; yet he does not seem to offer any very tangible answer. That the struggle between the older classical and the Austrian systems of economic doctrine was settling into a stalemate at the beginning of the twentieth century is now fully appreciated. That Marshall in his "eclecticism" appeared to reconcile conflicting ideas is likewise clear.⁷ But that this eclecticism, then as now, must be regarded for the most part as a hindrance rather than a help to constructive thought does not seem to be at all generally manifest even today. The system devised by John Bates Clark, and the critical utterances of Hobson, Veblen, and Mitchell, doubtless prevented economic theory from settling into an eclectic desuetude, and much of the criticism attacked the problem at its source. Nevertheless, it still does not appear to be sufficiently understood that the real difficulties in most of our economic theory have to do with certain basic preconceptions implicit in both the classical and the Austrian points of view, which an eclecticism serves rather to perpetuate than to destroy. The real solution would seem to be to expose with sufficient finality these misconceptions and pitfalls of reasoning, to eliminate them from our principles and other texts on economics, and to proceed to lay down hypotheses in the true spirit of science and in the light of twentieth-century knowledge.

SECTION 24. THE TRUTH AND ERROR IN THE ALTERNATIVE-USE DOCTRINE

An example close at hand of the resurrection or continued use of pseudoscientific method in economic theory is seen in the recent attempt to formulate a general law of price by employing the so-called alternative-use or opportunity-lost doctrine, which was sug-

⁷ But see Arthur C. Pigou (ed.), *Memorials of Alfred Marshall* (New York, 1925), p. 418, letter of Marshall to John B. Clark, March 24, 1908.

gested in its essence by Adam Smith, was later utilized by the Austrians, and was finally given its more modern expression in the nineties at the hands of David I. Green of the Johns Hopkins University.⁸ The doctrine, as presented in recent literature, may be broadly stated, as follows: The cost or utility or price or value of any commodity is measured by the possible uses of its basic materials in other or alternative ways which had to be foregone in the creation of the commodity in question; in short, by the cost, utility, price, or value of other commodities lost or destroyed by virtue of its production.

More than forty years ago, the fallaciousness of this doctrine as applied to price measurement was, it would appear, most conclusively demonstrated in the searching criticisms of Silas M. Macvane of Harvard; yet it is seemingly still very much alive, although dressed today in becoming modern style and cloaked superficially in the language of science.⁹

Thus appareled, the "alternative" formula is hailed in this recent literature as retaining "the scientific content of cost-of-production theory while sidetracking the sources of a century and a half of controversy"; as eliminating from economic value discussion the treatment of "causes in contrast to laws"; as bringing to us the "only objective and scientific content in the cost notion," the empirical law, "the scientific explanation of price"; as providing, with respect

⁸ Cf. Raymond T. Bye, "The Nature and Fundamental Elements of Costs," *Quarterly Journal of Economics*, Nov., 1926, pp. 30-62; Frank H. Knight, "A Suggestion for Simplifying the Statement of the General Theory of Price," *Journal of Political Economy*, June, 1928, pp. 353-370; Edward S. Mason, "The Doctrine of Comparative Cost," *Quarterly Journal of Economics*, Nov., 1926, pp. 63-93; Arthur E. Monroe, "Cost and Its Relation to Value," *Quarterly Journal of Economics*, Aug., 1928, pp. 530-563. Monroe actually defined "cost" as that which is "given up" or "foregone"—those alternative things we might have done—in entering upon any line of activity. Thus the "cost" of a night's sleep would appear to be the "psychic income" we "sacrifice" in not being able to spend the eight hours in doing something else. Among other writers who seem to favor similar ideas are H. J. Davenport, G. Cassel, F. A. Fetter, H. D. Henderson, T. N. Carver (see Bye, *op. cit.*, p. 36 n.). Cf., also, David I. Green, "Pain-Cost and Opportunity-Cost," *Quarterly Journal of Economics*, Jan., 1894, pp. 218-229; and chap. xiv, sec. 46, below.

⁹ Cf. Silas M. Macvane, "Marginal Utility and Value," *Quarterly Journal of Economics*, April, 1893, pp. 255-285 and "Böhm-Bawerk on Value and Wages," *Quarterly Journal of Economics*, Oct., 1890, pp. 24-43; "The Austrian Theory of Value," *Annals of the American Academy of Political and Social Science*, Nov., 1893, pp. 348-377 (or 12-41); and *The Working Principles of Political Economy* (New York, 1890).

to utility, a similar scientific explanation, so that we may write, as an equation, cost equals price equals value equals utility; and, finally, as making possible a considerable simplification in distribution theory, since, with the use of this formula, the factors of production "simply fail to put in an appearance." In expanding the idea as applied to costs, it is held that, if these are stated "in terms of alternative commodities," all reference either to sacrifices or to outlays may be omitted; for, since labor effort can admittedly not be measured anyhow, whether with respect to quantity, irksomeness, skill, or co-operation with the other factors of production, many difficulties which have puzzled us hitherto are avoided. All one presumably needs to do, to achieve these and other beneficial results, is to state costs or utilities in terms of alternative products or uses, for it is the units allegedly "sacrificed in production" which measure these things.¹⁰

In the illustration here given, the alternative-use doctrine is presented with a rigor and consistency previously unequaled. Economists should be grateful for this forthright statement, even though the doctrine becomes more vulnerable in its nakedness, stripped of the usual equivocal encumbrances. To some extent throughout the whole period of economic writing and certainly since the Austrians entered the arena of value theory, the method of stating costs and utilities in terms of alternative commodities—for example, that "the cost of beaver is deer and the cost of deer is beaver"—has been vigorously pursued. Nothing has been lacking save the opportunity to meet the issue squarely, and this is now provided in recent literature.

It is well to pause here and note immediately in the analysis of this doctrine that it contains three distinct parts: (1) the device by which any one of the four terms mentioned, that is, cost, utility, price, or value, is transferred from an *actual* to an *alternative* use; (2) the method of relating one term to another to secure the aforementioned "equation"; (3) the contention that alternative uses or opportunities lost affect in important ways the value of commodities.

With the third part of this doctrine, namely, that alternative uses or opportunities lost affect in important ways the value of commodities, there can hardly be any legitimate quarrel. Here is the element

¹⁰ Cf. Knight, *op. cit.*, pp. 355-367.

of truth which gives the dogma its continued vitality. The significance for value theory of opposing demands apparently requires repeated emphasis.¹¹ With the first two implications we shall be concerned here.

A. *The might-have-been method of measurement.* To illustrate the meaning of the alternative-use assumption as a measure of cost, Macvane in his historic criticism takes as an example the use of wool in the manufacture of coats, blankets, carpets, and other articles.¹² The wool used in making any one of these products is lost to making the others, and this loss is presumed to measure the cost. Thus, if you wish to get at the cost of wool for making coats, you are told that it is the cost of wool for making blankets and carpets. If you are seeking the cost of wool for making blankets, you are referred to carpets and coats. If you look for the cost of wool for carpetmaking, you are told to go to coats and blankets. The doctrine makes it necessary to look for the cost of a commodity in goods other than the commodity itself. Cost thus "insists on being something or belonging to something that might have been but is not. When you try to grasp it, to attach it to a real commodity, and to measure it as a definite, tangible quantity, it eludes you and retires to the region of the might-have-beens."¹³

An identical argument may be advanced with respect to utility. It is merely necessary, wherever cost has been used in the foregoing illustration, to substitute utility with similar results.¹⁴ And the same reasoning applies, also, to price and to value.

But what is obtained by this might-have-been method of measurement? Is anything at all obtained? Say you have a stick about a yard in length, how measure it without some agreed-upon unit like the foot? Simple enough. Imagine another stick of exactly the same length, and measure it thereby. Thus: Stick A is equal to imaginary stick B, which is all there is to it, and all bother about units and standards is eliminated.

¹¹ Cf. Bye, *op. cit.*, pp. 36 ff. Opposing demands, it should be noted, deal only with the demand (utility) side of the pricing process and leave the supply (cost) side out of account.

¹² "Marginal Utility and Value," p. 265.

¹³ *Ibid.*, p. 269; cf., also, Macvane, "The Austrian Theory of Value," pp. 357-358.

¹⁴ Cf. Knight, *op. cit.*, p. 361.

Here we have in substance what the first part of the alternative-use doctrine evidently comes to, whether applied to price, utility, value, or cost, or to any combination of these. In the matter of cost it has been extremely difficult, apparently impossible in fact, to find an acceptable homogenous unit of measurement. Labor pain, exertion, "tired muscle and tedious waiting"—none of these is satisfactory. Since the actual problem is so disheartening, a shell-game attempt to escape it has been inaugurated by suggesting that the cost of commodity A is the cost of might-have-been commodity B is the cost of might-have-been commodity C. This procedure seems not only to have given no aid whatever toward a solution but to have kept the minds of economists from the actual problem. In trying to discover under which shell the cost or utility button has been put, some economists have been lulled into believing that they have been investigating the nature of the button itself. The might-have-been method focuses the eyes on the shells; the mind is kept occupied with guessing under which shell the button is. Hidden by this maneuver, the button itself never appears to have been laid bare for examination.

If the futility of this part of the alternative-use argument does not seem as yet sufficiently apparent, any attempt to develop by its means a general law of price (and this is what in recent literature appears to be the paramount issue) completes the exposure. How may one express, for example, the "cost of production of the whole group of commodities for which wool is a means of production"?¹⁵ Not by referring wool to some additional alternative use, since in the broader assumption it has no other use. Shall we then say that wool has a price or utility or cost or value, with respect to this whole group of commodities, which is derived by anticipation from the "value" of these very commodities? Apparently that, by assumption, is all we can legitimately state, namely, the useless truism that the cost or price or value or utility of the whole group constitutes the cost or price or value or utility of the whole group! In endeavoring to formulate a general theory of price or value in terms of cost or utility on the basis of the alternative-use doctrine, there is no might-have-been alternative use left to which one may be referred. No additional

¹⁵ Macvane, "Marginal Utility and Value," p. 266.

shell is in sight under which the cost or utility or price or value button might be concealed.

B. *The "equation" of cost-utility-price-value.* The second part of the alternative-use doctrine, the method of relating cost, utility, price, and value one to another, would seem to be readily disposed of, once the significance of the first part is clear. For the exposé of this part of the argument, we are also indebted to Macvane: "If the value of the means of production," he writes, "be the attributed value of the potential commodities contained in them, and if the value of the means constitutes the cost of the commodities, it seems to follow that cost, as a general phenomenon, is indistinguishable from value. If utility be the measure of cost, then cost is, as a general conception, identical with utility. It is robbed of all independent significance."¹⁶ How is the equation "cost equals price equals utility equals value" derived? Apparently by assuming these terms to be equivalent in the premises and then "finding" them equal in the conclusion.

But this is not proof; it remains an unverified presumption. And its unverified character would doubtless be clear to everyone were it not for the hypnotic effort of the alternative-use shell game. The cost button is placed under one shell; by the alternative-use maneuver, it appears not only now under this shell and then under another, but occasionally the utility or the price or the value button is substituted for the cost button, creating the illusion that as a matter of fact all four buttons are identical. Destroy the shell game, and the illusion vanishes with it.

Here is an example of pseudo science in economics. Such putative formulae serve to confuse thought and to lull one into a feeling of accomplishment where there is none. Macvane's incisive analysis of the sophistry can hardly be improved upon, although, when he himself comes to defend the classical cost position, his critics find him equally vulnerable.

¹⁶ *Ibid.*, pp. 267-268.

SECTION 25. OTHER ELEMENTS OF PSEUDO SCIENCE IN
COST AND UTILITY THEORY

Besides the "alternative" dogma, as a measure of price, which in current literature still provides a flagrant example of pseudoscientific method in economics, there are a number of other devices employed in the classical cost theories which might be legitimately placed in the same category. It may, for example, now be confidently asserted that the early conception of a rude or natural society, in which there were thought to be free exchange and equal competition but no capital and in which "quantity of labor" determined cost, is not in any sense borne out by modern anthropological studies of primitive peoples.¹⁷ Most of the classical structure built on this premise, therefore, would appear to fall to the ground; that is, whatever was left of it after the failure of the laborious attempt to arrive at a homogeneous measure of subjective cost based on the concepts of labor pain, labor effect, or "tired muscle and tedious waiting."¹⁸ With respect to current mathematico-statistical developments in price economics, one is tempted to suggest that, in place of the word "cost" with its long heritage of ambiguous implications, the word "expense" be uniformly used, even though the cost accountant might object to being called an expense accountant.

Faulty generalizations about early society, together with the "alternative" sophistry, have also helped materially in building up the structure of subjective-utility analysis, the most important form of which concerned itself with the supposed homogeneity and comparability of subjective utilities and disutilities.¹⁹ This supposed homogeneity and comparability, modern psychology and Charles E. Persons's penetrating analysis now appear to have finally made ready for the scrap heap, even though some economists here and there still

¹⁷ Cf. Adam Smith, *Wealth of Nations* (Rogers ed.; Oxford, 1880), I, 49; Frederick von Wieser, *Natural Value* (London, 1893); J. L. Myres, "The Beginnings of Science," in Francis S. Marvin (ed.), *Science and Civilization* (London, 1923), pp. 10-12; and chap. ix, sec. 29, below.

¹⁸ Cf. chaps. viii-xii, below.

¹⁹ Cf. William Smart, *An Introduction to the Theory of Value* (3d ed.; London, 1914), espec. his references to the views of Menger, Jevons, Wieser, and Böhm-Bawerk; also, John B. Clark, "The Ultimate Standard of Value," *Yale Review*, Nov., 1892, pp. 258-274, and chaps. xiii-xv, below.

drag out the rusty pieces and give them a new polish.²⁰ Against the related ideas of statics, normality, specific productivity, hedonism, utilitarianism, and the mechanistic and organismic conceptions of society—representing, as they still do, widely held sophisms, false analogies, or hasty generalizations—twentieth-century criticism has been especially severe. The pseudoscientific character of these concepts may be indicated in advance as follows: They assume a general rationality in human behavior which does not exist except in an exceedingly narrow sphere; they posit a refined system of barter which is quite out of harmony with the facts of the modern market; they substitute artificial abstractions for the actual pecuniary logic which is at the bottom of a money economy; they continue to be based upon a purely hedonistic theory of human nature, long since exploded, merely substituting utility-disutility for pleasure-pain with similar connotations and applications; their most widely used analogies—that is, statics, normality, and the organismic concept—are quite at variance with reality, with the facts of evolution and institutional change, and with modern researches in psychology, anthropology, and sociology.²¹

How much of the elaborately spun subjective-utility structure may now be regarded as a pseudoscientific fabrication will later be indicated in detail.²² Here, much more than with classical cost implications, which will also be more fully analyzed presently, there is danger of confusion in attempting to apply mathematical and other rigorous techniques in modern price economics. Since the Austrian analysis

²⁰ Cf. Charles E. Persons, "Marginal Utility and Marginal Disutility as Ultimate Standards of Value," *Quarterly Journal of Economics*, Aug., 1913, pp. 547-578. The author's keen analysis of the influence of inequality of wealth upon utility theory should be sufficient to lay for all time the ghost of a homogeneous utility jelly or of utility being "identical at the margin" or anywhere else with disutility. Cf., also, chap. xv, sec. 52, below.

²¹ Cf. Thorstein Veblen, "The Limitations of Marginal Utility," *Journal of Political Economy*, Nov., 1909, pp. 620-636; Wesley C. Mitchell, "The Rationality of Economic Activity," *Journal of Political Economy*, Feb., 1910, pp. 97-113; March, 1910, pp. 197-216; Ezekiel H. Downey, "The Futility of Marginal Utility," *Journal of Political Economy*, April, 1910, pp. 253-268; Ralph B. Perry, "Economic Value and Moral Value," *Quarterly Journal of Economics*, May, 1916, pp. 447-449; Walter M. Adriance, "Specific Productivity," *Quarterly Journal of Economics*, Nov., 1914, pp. 149-176; also, references in n. 25, below, and chaps. xv-xx, below.

²² See chaps. xiii, xiv, xxi, below.

and subsequent developments surrounding the word "utility" have been predicated upon vague and ambiguous usage, it might be more conducive to unequivocal mathematical analysis, as one current method of approach, if the word "utility," like "cost," were avoided as much as possible and "purchase tendency," "price offer," "vendibility," or some other realistic descriptive designation were used instead.²³

Economic value theory has seemingly been to such a large extent pseudoscientific in character that one might be inclined to make exceedingly short shrift of it, were it not for the realization that, in every field of social study, hypotheses regarding value are indispensable for scientific understanding. Particularly is this true in the study of basic human dispositions and social institutions. Price economics, important as contributions in that field have become, does not pretend to reach down to the fundamentals of human behavior, upon which fundamentals, after all, social science must some day come in large part to rest. No matter how pseudoscientific and reminiscent of scholasticism the classical cost-utility dogmas may appear, there seems to be no reason to conclude that value theory is inherently a futile intellectual exercise and that valid hypotheses cannot be formulated with respect to human behavior in economics. We may have to wait a while longer for more substantial results, possibly until psychology, anthropology, and sociology are farther along, even as physiology had to wait until organic chemistry could come to its assistance, and chemistry had to wait until certain physical principles were sufficiently clarified.

And yet there are already many hopeful signs. While classical value theorists, schooled in the old dialectic and hampered by an

²³ Cf. chap. vi, sec. 21, below; also, Evans, *op. cit.*, p. 116, and "Mathematical Theory of Economics," *American Mathematical Monthly*, March, 1925, pp. 100-110; Irving Fisher, "Is Utility the Most Suitable Term for the Concept It Is Used to Denote?" *American Economic Review*, June, 1918, pp. 335-337, and "A Statistical Method for Measuring 'Marginal Utility' and Testing the Justice of a Progressive Income Tax," in *Economic Essays Contributed in Honor of John Bates Clark* (New York, 1927); and Ragnar Frisch, "Sur un Problème d'Économie Pure," *Norsk Matematisk Forenings Skrifter*, Serie 1, Nov. 16, 1926. Whether or not the excellent statistical measures independently devised by Fisher and Frisch are really applicable to the concept of utility, as ordinarily understood by economists, will become more evident in the analysis of the succeeding chapters.

antiquated psychology and by an unscientific attitude toward hypotheses, have been backing one another into an impasse, other economists have either refused to be drawn into the controversies (proceeding along mathematical and physical-science lines to test out the implications of any given assumption and examining the price system as a thing apart) or they have looked elsewhere for material out of which to build a foundation more in keeping with society and human nature as they actually are.²⁴ In these new endeavors, besides the significant contributions made by mathematicians and statisticians, with which economists have become increasingly familiar, considerable assistance has been rendered and continues to be rendered by certain philosophers and sociologists (by such men as Dewey, Perry, Stuart, and Cooley); and newer conceptions regarding value have taken form. We thus hear progressively less regarding classical dogmas and more about institutional settings and customary attitudes, more about ever-changing interests and the impact of novel situations, about total income and budgetary arrangements, price levels and purchasing power, and about trends and frequencies, stabilization and deliberate control, fair prices and moral judgments.²⁵

Both with the pseudoscientific elements in classical and neoclassical economic doctrine sketched in this chapter, and with more constructive phases of value concepts, the following pages will be concerned. The analysis already presented, of recent efforts to formulate a general law of price on the basis of the alternative-use sophistry, will serve as an introduction to a critical survey of cost and utility theories and of the discussions surrounding the validity of these doctrines which raged during the closing years of the last century and which, at the hands of most able advocates on both sides, focused attention upon

²⁴ Cf. references to Veblen and Mitchell in n. 21, above.

²⁵ Cf. Charles H. Cooley, "The Institutional Character of Pecuniary Valuation," *American Journal of Sociology*, Jan., 1913, pp. 543-555; John A. Hobson, *Work and Wealth* (New York, 1914), pp. 1-27, and *Free Thought in the Social Sciences* (London, 1926), pp. 61-166; Wesley C. Mitchell, "The Prospects of Economics," in *The Trend of Economics*, ed. Tugwell, pp. 3-34; Ralph B. Perry, *op. cit.*, and his *General Theory of Value* (New York, 1926); John Laird, *The Idea of Value* (Cambridge, 1929); Henry W. Stuart, "The Phases of the Economic Interest," in *Creative Intelligence*, by John Dewey, et al. (New York, 1917), pp. 310-340; and Allyn A. Young, "Some Limitations of the Value Concept," *Quarterly Journal of Economics*, May, 1911, pp. 409-428.

the shortcomings of each theory and especially upon certain questionable premises underlying them both. Thus the stage was set for a period of fundamental criticism, out of which we may now be emerging into an era of more scientifically drawn hypotheses with respect to the broader meaning of value.

CHAPTER VIII

IMPORTANT CONCEPTS IN ECONOMIC THEORY

IN ATTEMPTING any rigorous analysis of traditional economic doctrine, the question of a clear understanding of its four general concepts—value, utility, price, and cost—is of first importance, since each of these terms has in the course of time acquired a variety of meanings, and since failure to observe the elementary precaution of supplying them with proper explanatory modifiers has been responsible for no little of the confusion which the long history of controversy surrounding the subject has brought forth. This difficulty was in fact recognized long ago.¹ The common practice is therefore to be deprecated of stating once for all in an introductory way that such and such a technical or specialized meaning will be considered to attach to any of these terms. The meanings often fluctuate widely in even brief statements, as will become clearly evident in the analyses that follow.²

SECTION 26. VALUE AND UTILITY

Parts II and III of the present volume are concerned primarily with indicating the relation or lack of relation between cost, price, and utility, a discussion of broader value concepts being reserved until later. It is nevertheless necessary to say something here in a preliminary way about “value,” for it was this term which was most generally used in Adam Smith’s and David Ricardo’s day when classical cost theory took its rise.

¹ Cf. David Ricardo, *On the Principles of Political Economy and Taxation* (1st ed.; London, 1817), p. 5: “From no source do so many errors, and so much difference of opinion in that science [political economy] proceed, as from the vague ideas which are attached to the word value.”

² In these analyses an effort will be made, when using excerpts from classical writers and others (where modifiers are lacking and difficulty is likely to be encountered), to preserve clarity either by placing these terms in quotation marks or by supplying a less ambiguous term in brackets.

By that time two major and contrasted interpretations of economic value had come to be accepted as legacies out of an already long past, dating at least as far back as Aristotle; value-in-use and value-in-exchange; the one the forebear of utility theory; the other, of classical cost analysis.³ Value-in-use, or utility to the consumer, had come to be recognized as an essential condition attaching to a commodity before it could have economic significance. But, though essential and necessary as a conditioning factor, utility was regarded by Smith and Ricardo and their followers as having no positive influence as an actual measure or determinant of price. Nor was this assumption very seriously challenged until the rise of the Austrian School of utility analysis toward the close of the last century.

As affecting the definition of value, the early classical theorists focused attention upon value-in-exchange as the only phase with which, they maintained, economics is legitimately concerned. Wherever in their writings value is used without a modifier, it is generally understood that exchange-value is meant, although this convention has by no means been consistently followed; and, of course, with the rise of the Austrian School and the resurrection of utility or value-in-use, the employment of the term "value" without a modifier has led to endless confusion.

Other phases of early classical value analysis had to do with the concepts of labor and scarcity. To quote Ricardo: "Possessing utility, commodities derive their exchangeable value from two sources: from their scarcity, and from the quantity of labour required to obtain them."⁴ The significance of scarcity in determining value in certain instances is thus noted, but it is immediately dismissed on the assumption that such instances "form a very small part of the mass of commodities daily exchanged in the market. . . . In speaking then of commodities, of their exchangeable value, and of the laws which regulate their relative prices, we mean always such commodi-

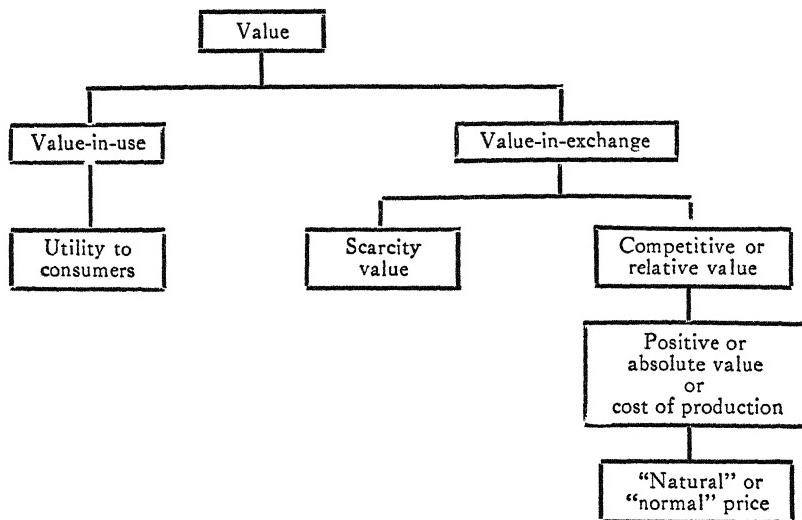
³Cf. Adam Smith, *Wealth of Nations* (London, 1826), p. 33; Ricardo, *op. cit.*, chap. i, "On Value"; and Jacob H. Hollander, "The Development of Ricardo's Theory of Value," *Quarterly Journal of Economics*, Aug., 1904, pp. 455-491. Cf., also, William F. Lloyd, "The Notion of Value" (first published in 1833), *Economic Journal (Supplement)*, *Economic History No. 2*, May, 1927, pp. 168-183.

⁴*Op. cit.* (1821 ed.), p. 2.

ties only as can be increased in quantity by the exertion of human industry, and on the production of which competition operates without restraint.”⁵

Exchangeable value Ricardo also designated as relative value, behind which “lies the concept of positive or absolute value. Possessing utility and scarcity, commodities are valuable in themselves, in proportion to the capital employed and the labor expended in their production. Positive value is thus the same as cost of production, consisting of wages of labor and profits of stock.”⁶

These various meanings attached to value by early classical economists, together with an alleged relationship to “natural” or “normal” price, may be represented diagrammatically as follows:



⁵ *Ibid.*, p. 3. As pertaining to the problem of “value,” Ricardo was here using “scarcity” in a rather restricted sense. Elsewhere, he of course recognized the significance of “scarcity” more broadly conceived, that is, as one of the two basic factors underlying all economic activity, the other factor being the complexity and indefinite expansibility of human wants. In this broad sense, both natural and human resources are scarce in relation to man’s desires, but whether this broader “scarcity” situation is of insignificant or of prime import in conferring “value” is quite another matter. Cf. chaps. xiii, xiv, xxxiv, below; also, whole of Part IV.

⁶ Hollander, *op. cit.*, p. 459. Cf., also, *Letters of Ricardo to Trower*, ed. James Bonar and Jacob H. Hollander (Oxford, 1899), pp. 151 and 162. The attempted distinction between relative and absolute value is here rather nebulous; it is fortunately not necessary to take it into account in the present analysis.

In the important epoch for economic thought beginning with Adam Smith, of the two major aspects of economic value, one (utility) was almost totally ignored, while the other (cost) was given the primary, sometimes the complete, role in price determination. Utility and scarcity, though recognized, have no real place in the classical cost system, and "freely operating competition" is always assumed. Thus hindrances to competition and the influence of monopoly are also excluded. It is important to emphasize these limitations here, since it was a revival of the significance attaching to the omitted factors which later became responsible in large part for the decline of the classical cost-of-production system of economic thought.

SECTION 27. PRICE

Coupled with this "cost" emphasis upon value and (as will be developed presently) upon "quantity of labor" as determining the "cost," Ricardo drew a distinction between "natural" price and market price,⁷ relating exchangeable value to the former rather than to the latter, although he assumed that under freely operating competition there would be little difference at any time between them:

In making labour the foundation of the value of commodities, and the comparative quantity of labour which is necessary to their production the rule which determines the respective quantities of goods which shall be given in exchange for each other, we must not be supposed to deny the accidental and temporary deviations of the actual or market price of commodities from this, their primary and natural price. . . . The desire, which every capitalist has, of diverting his funds from a less to a more profitable employment . . . prevents the market price of commodities from continuing for any length of time either much above or much below their natural price. . . . In speaking then of the exchangeable value of commodities, or the power of purchasing possessed by any one commodity, I mean always that power which it would possess, if not disturbed by any temporary or accidental cause, and which is its natural price.⁸

Behind actual market price Ricardo thus posits "natural" (or normal)

⁷ Cf. diagram, sec. 26, above.

⁸ *Op. cit.* (1821 ed.), pp. 80, 84, 85. In drawing a distinction between market and natural price, Ricardo was following Smith.

price, from which he holds, however, that the former does not differ significantly over any period of time.⁹

Natural price and market price are the two chief historical price concepts, the one thought of as an equilibrium towards which actual prices tend under conditions of completely free and open competition, the other designating the price one actually pays for a commodity or service in the marts of trade. Other variants, such as fair price, just price, customary price, willing-to-pay, able-to-pay, and obliged-to-pay price, have also come to light in the evolution of value theory, but these need not concern us at the present time.¹⁰

SECTION 28. COST

With respect to "cost," various meanings have also developed, such as original cost, reproduction cost, and prudential cost, pertaining to one significant category; but, in economic theory proper, a division into two even broader groups has been all-important historically, namely, into *money* cost on the one hand and *subjective* or psychophysiological cost on the other. Each of these main divisions should be still further divided and appropriate secondary as well as primary modifiers used, as "prudential money cost," to make for utmost clarity in analysis. The phraseology for differentiating the two major divisions of cost has varied somewhat at the hands of different economists. Money costs have sometimes been called pecuniary costs or enterpriser's expenses. Subjective costs have at times been designated as nonpecuniary costs or "real" costs or simply as "costs."

Money costs or enterpriser's expenses pertain to the pecuniary outlays which a businessman incurs in the conduct of his undertaking. They consist of payments made for labor, raw materials, and other requisites which he utilizes. Taussig lists, among such expenses,

⁹ What Ricardo designated as "natural" price was called by later economists "normal" price. Since the latter term is less ambiguous and is generally preferred today, it will be used hereinafter in the present volume in place of the other concept. Cf. Charles W. Macfarlane, *Value and Distribution* (Philadelphia, 1898), p. 26; also, Veblen's criticism, chap. xvi, below.

¹⁰ See chaps. xxvii and xxxiv, below.

outlays for wages, charges for material, remuneration for the enterpriser's own time and trouble, and interest on capital used.¹¹

Subjective or "real" costs are entirely different. In contrasting them with money outlays, Taussig states that they pertain "to the sacrifices undergone; to the labor of the hired workman, and not to his wages; to the trouble, anxiety, and work of superintendence of the employer, not to his profits or ordinary gains; to the previous saving [sacrifice] by which the capital has been accumulated, not to the interest on that capital."¹² Adam Smith regarded subjective cost as that which the laborer sustains in giving up "his ease, his liberty, and his happiness." Ricardo thought of it as relative quantities of labor and elapsed time. Cairnes spoke of it as the sacrifice involved in labor, abstinence, and risk. Macvane regarded it as being felt "in the form of tired muscles and tedious waiting." By others it has been viewed simply as "labor-pain" or "labor-effort."¹³

¹¹ *Principles of Economics* (3d ed.; New York, 1930), I, 168-169.

¹² *Ibid.*, I, 169.

¹³ Cf. Adam Smith, *op. cit.*, p. 37; *Letters of Ricardo to McCulloch*, ed. Jacob H. Hollander (New York, 1895), letter of May 2, 1820, p. 65; John E. Cairnes, *Political Economy* (London, 1874), pp. 80-81; Macvane, "Marginal Utility and Value," p. 269. Further references to cost and utility theory will be found in the immediately following chapters, below.

With respect to economic value in general see: Gustav Cassel, *Theoretische Sozialökonomie* (5th ed.; Leipsic, 1932); Werner Falk, *Das Werturteil* (Berlin, 1932); Else Frohnhäuser, *Das Werturteil in der Volkswirtschaftslehre* (Munich, 1929); Walton H. Hamilton, "The Place of Value Theory in Economics," *Journal of Political Economy*, March and April, 1918, pp. 217-245, 375-407; Rudolph Kaulla, *Die Geschichtliche Entwicklung der Modernen Werttheorien* (Tübingen, 1906); Ludwig von Mises, *Grundprobleme der Nationalökonomie* (Jena, 1933); Charles M. J. and Charles Henri Turgeon, *Premières Études; la Valeur d'Après les Economistes Anglais et Français* (3d ed.; Paris 1925); Young, "Some Limitations of the Value Concept," pp. 409-428.

CHAPTER IX

NATURE OF THE CLASSICAL COST DOCTRINE OF PRICE DETERMINATION: CERTAIN INHERENT FALLACIES

AS HAS JUST been broadly indicated, classical cost theory is based, on the one hand, upon a distinction between money costs and subjective costs, and, on the other, upon certain assumptions about the structure and functioning of economic society and the relationship between cost and price.

A recent writer sums up the significance for economic theory of the distinction between money and subjective costs as follows:

The costs of production which enterprisers incur in the conduct of their businesses are pecuniary in nature. They consist of the payments which must be made for various requisites of production, such as labor, raw materials, and so on, in the raising, manufacturing, or marketing of commodities and in the rendering of services. For the theory of value, however, economists have found it necessary to seek some ultimate "real" or "physical" costs lying back of these monetary outlays. This is because it is the purpose of value theory to explain what fixes the prices of commodities; and it does not carry us very far in such an explanation to say that prices depend upon costs, if those costs are found, upon analysis, to consist only of prices themselves. Hence the discovery of the real elements of costs has long been a major problem of economic theory.¹

The concept of subjective cost and its alleged relation to price exhibits a definite doctrinal development, especially from the last quarter of the eighteenth to the close of the nineteenth century. Nearly all of the phases of this development are more or less clearly seen in the doctrines of Adam Smith, and more particularly in the growth of the thought of David Ricardo under the impetus of the changing events of the period in which he lived and of his controver-

¹ Raymond T. Bye, "The Nature and Fundamental Elements of Costs," p. 30.

sies with disciples and critics, such as John Ramsay McCulloch, James Mill, Jean Baptiste Say, Colonel R. Torrens, and Thomas R. Malthus.²

Value-in-exchange or normal price, to repeat what these writers believed with respect to fundamentals, was thought of as determined either by scarcity conditions or by cost of production, that is, by whatever expenditure was necessary for labor and capital. Scarcity conditions were regarded as applying to only an exceedingly limited number of commodities, the vast majority being thought of as freely produced without restraint and as competitively exchanged. It was with an analysis of these supposedly freely produced commodities, "of their exchangeable value, and of the laws which regulate their relative prices" that the early classical writers were primarily concerned.³ Under the assumed normal laissez faire and supply-determined conditions, and with the allegedly exceptional scarcity values excluded, all that was left as the measure of price was the necessary expenditure of labor and capital. Land, as a factor, was sometimes mentioned, but its influence upon price was held to be nil under the assumed freely operating competitive conditions.

The foregoing assumptions—the alleged negative effect of utility, the supposed insignificant role of scarcity conditions, and the putative existence of widespread and freely operating competition in nearly all phases of business activity—are today recognized either as fallacious or as much too sweeping. But in their light the classical cost theory would seem to be fairly logical and understandable. It is largely as present-day writers lose sight of the assumptions that they apparently fail to appreciate the meaning and the limitations of the classical doctrines.

The basis, then, of the early classical approach to price determination was an inherited "cost" basis, and whether the "cost" should be viewed as money cost or as subjective cost depended almost entirely upon the interpretation given to necessary expenditure of labor and capital.

² Cf. Hollander, "Ricardo's Theory of Value," pp. 455-491, and *David Ricardo, a Centenary Estimate* (Baltimore, 1910).

³ Cf. David Ricardo, *Principles of Political Economy and Taxation* (London, 1821), p. 3.

SECTION 29. EARLY AND RUDE SOCIETY: EMBODIED
AND COMMANDED LABOR

Adam Smith analyzed what meaning might be given to "necessary expenditure of labor and capital" and set forth certain hypotheses. To begin with, in connection with his idea of an "early and rude state of society which precedes both the accumulation of stock and the appropriation of land,"⁴ he assumed that commodities would exchange in accordance with the amounts of labor required to produce them. This inference was logical enough in the light of the Garden-of-Eden preconceptions of his day, but in the light of modern anthropological research there would appear to be no basis for it at all.⁵

Several conclusions seem to follow from a more up-to-date description of early and rude conditions, before accumulation of stock or appropriation of land, that is, before even the most primitive of settled communities were as yet in existence. First, such conditions

⁴ *Wealth of Nations* (4th ed.; London, 1826), p. 51.

⁵ Cf. Myres, "The Beginnings of Science," in Marvin's *Science and Civilization*, pp. 10-12: "... It is in the dense forest régime of the tropical rain-belt that we can best observe what happens when Nature, at her strongest and most aggressive, is confronted with man at his weakest, technologically, socially, individually. Here agriculture and domestication of animals are alike impracticable: man's hand is against everything, no less than everything around is against him. Plante he may rob of their fruit, animals of their young; but only to kill and eat. Débris of dead or killed plants, or of the game he has eaten, are his sole raw-materials.... It is only in his wholly human ingenuity to find secondary uses for such cast-off remnants of Earth's vesture that he differs from the *bandar-log* and the forest carnivora. Concerted action, even in hunting, is a drawback, if not a danger; it scares the creatures he would kill and eat, and attracts those which kill and eat him. Beyond an early point, experience is not transmissible; youth has no more to learn from age, and in the jungle age cannot keep up with youth; so society breaks up just when it should most cohere. Even family life hardly outlasts the period of infancy. As the Amazon Indian said to M. Crevaux, 'I had a wife, but I don't know where she is now: the children went off and I lost her; she is hunting somewhere, like me.' Consequently there is no 'collective memory,' nor tradition of experience; no premium on foresight or ambition, for a great hoard is a great evil and a great waste of good stuff, since in the jungle all stores rot. 'An Indian who has a knife will not give anything for a second,' and if he has no knife, he has probably nothing that he could give for one, unless perchance he has found rubber, and not dropped it yet. For the same reason there is little leisure.... Rigid selection, on these lines, of the best individualists to survive, has resulted in unusual suppression of the social instincts, even the instinct of kind, which very few animals lose. The huge mortality is accentuated by frequent cannibalism; for man is good eating; he is the best of sport, because he is as clever as you are; and besides, if you bag him, there is one hunter less. The greatest happiness, indeed, is that of the smallest number."

appear to be inconsistent with any kind of formal exchange no matter how crudely conceived. Man had nothing to barter in such primitive life except blows in mortal combat. He robbed or killed and ate what he could, leaving the rest to rot, for he dared not carry anything away. There was apparently no concerted action; no premium on foresight or savings. Secondly, if a man secured anything from another man (something that other had probably just killed to eat), it was doubtless by jungle force, stealth, or cunning; nor is there any evidence to suggest that these instincts were later materially modified when the first rudiments of exchange began to develop, after a slight "accumulation of stock" had become possible, although gift exchange and barter also developed at an early time. More complete knowledge would seem to indicate that along with formal exchange there was a "forced exchange" marking the end of a period of clan or tribal hostilities, by means of which the victor secured the spoils as "gifts" or as tribute from the vanquished. Exchange was thus presumably born at least in part in predatory power; certainly not in such an armchair measure as quantity of labor against quantity of labor. Traditions of forced exchange, tribute, and the dominance of the stronger, even more than primitive barter, apparently marked the early valuations set upon commodities, as they passed from hand to hand, and thus obviously constituted part of the legacies out of which succeeding generations gradually erected a price structure. As settled communities began to emerge, peaceful exchange within the group, or with closely allied groups, doubtless took on increasing scope along with predatory exchange, but the "valuations" set by the latter evidently continued to exert their influence on exchange relations. Thirdly, by the time formal exchange had arisen, there doubtless was already in existence a considerable degree of differentiation among classes of laborers (the beginning of non-competing groups), a propertied class of chiefs or priests or other types of leaders and a much larger group of slaves or near-slaves having no property rights and doing the bidding of their masters (the beginning of institutions of caste and preference and property), and the recognition that certain portions of land or cattle belonged exclusively to the lords and masters. In short, predatory management, monopoly, and capital seem to have developed hand in hand

with exchange relations, so that a "natural" labor economy appears to have never been anything but a figment of the imagination.⁶

So many false inferences have been drawn from, and so much economic doctrine has been built upon, the exchange-under-a-natural-economy assumption that it is well to give it more than passing attention. The preconception has been widely used in at least two ways: first, as a belief that the imputed natural-labor measure once existed, with the implication (very potent to Ricardo's mind) that what maintained in primitive life might still continue to exist at present, even thought overlaid with more complex industrial conditions; second, as an ideal condition, representative of "good old days" now gone, to be achieved again in some future golden age, an argument which the Socialists (and more especially Karl Marx and his followers) have used with telling effect. If there never was a time in a state of nature when commodities exchanged according to the quantity of labor embodied in them, a good part of the structure of classical cost economics collapses at once and the Socialists lose some of their strongest arguments.

The usual reply to such reflections is that hypotheses are necessary in social as well as in natural science and that abstractions, even though they tell but a partial story, are essential to an understanding of complex phenomena. This may be granted; but the abstraction in question must be at least in partial agreement with fact, and the hypothesis must be the closest approximation to truth that we know, rather than a mere conjecture (no matter how seemingly plausible) having no bearing upon reality. The very plausibility of a false conjecture renders it all the more harmful and dangerous in system-building, and social theorizing is unhappily still replete with such conjectures. Here, as elsewhere in the realm of scientific endeavor, the repeated verification and testing of hypotheses with actual experience is the *sine qua non* of constructive advance.⁷

Adam Smith assumed that in primitive society commodities exchanged in accordance with the quantity of labor embodied in them.

⁶ Cf. chap. xxvii, below, espec. pages dealing with gift-giving, barter, tribute, slavery, and serfdom.

⁷ Cf. Jacob H. Hollander, "Economic Theorizing and Scientific Progress," *American Economic Review Supplement*, March, 1916, pp. 124-139; also, chaps. i and vii, above.

Modern anthropological research has shown this assumption to be false; it is an hypothesis which further knowledge has failed to substantiate. Smith did not insist, however, that this "labor embodied" measure of price was appropriate to the complex world in which he found himself. He recognized land and capital, as well as labor, as factors in production, and he saw no way of reducing land and capital to "embodied labor" as a common measuring rod.⁸ Yet he appears to have perpetuated the labor-measure fallacy in an even subtler way by suggesting "commanded labor" (the amount of labor a commodity will command for reproduction) as an alternative in modern society, a type of thought substitution which involves a logical fallacy difficult to discover (the same as the "alternative use" formula already analyzed, and its natural forebear), a kind of reasoning trap into which social theorists have fallen more than once in their long struggle to find a scientific basis for their discipline.⁹ Malthus stepped into it without any apparent scrutiny.¹⁰ Ricardo viewed it with suspicion for years, but in the end, with a seeming sense of futility, was apparently also caught, as we shall observe directly.

The difficulty with the reproductive-commanded-labor theory as a measure of price is that while it would apply accurately enough in Adam Smith's assumed rude society, where it would have been superfluous, it is fallacious when applied to the complex conditions of his day, to which he was primarily interested in having it fit. In his final statement the commanded-labor theory was hailed as "the only universal as well as the only accurate measure...the only standard by which we can compare the values [prices] of different commodities at all times and at all places."¹¹

⁸ Adam Smith, *op. cit.*, pp. 52-53. Cf., also, Harlan L. McCracken, *Value Theory and Business Cycles* (United States, 1933), chapters on "embodied" and "commanded" labor; and Hollander, "Ricardo's Theory of Value," pp. 461-463. To Hollander belongs the credit of re-establishing the distinction between "embodied" and "commanded" labor in modern discussion. See John R. Commons, "Acknowledgment," *Review of Economic Statistics*, April, 1923, p. 114.

⁹ Cf. chap. vii, above.

¹⁰ Cf. *Letters of Ricardo to Malthus, 1810-1823*, ed. James Bonar (Oxford, 1887). Regarding Malthus's use of commanded labor, Ricardo wrote (*ibid.*, pp. 236-237) "I still think that the invariability of your measure is the *definition* with which you set out, and not the *conclusion* to which you arrive, by any legitimate argument," Cf., also, *ibid.*, p. 218.

¹¹ *Op. cit.*, p. 41.

Let us see how Adam Smith reduced "the necessary expenditure of labor and capital" to the "amount of labor commanded." Say that in his hypothetical rude society, ten units of labor (by assumption invariable and interchangeable and the only factors in production) are required to produce commodity A and another ten to produce commodity B. Then not only would commodity A exchange for commodity B on a basis of equality, but either commodity would at any time, say fifty years hence, exchange for (or command) ten units of somebody else's likewise invariable and interchangeable labor. Not only would ten units of such labor be *embodied* in each of the two commodities, but each commodity would at any time *command* ten units of such labor—a simple arithmetical alternative *under the assumed hypothetical conditions*.

Thus far no logical flaw is involved in the reasoning, but the next phase contains the misstep, namely, to say, since original embodied labor would equal reproductive commanded labor under the assumed conditions, that the two labor measures are equivalent and synonymous under other conditions and that, therefore, where the one (embodied labor) cannot be made to fit, the other (commanded labor) can be utilized without further qualm or question. The exact reverse would, as a matter of fact, seem to be true. An alleged equivalence, attained under hypothetical conditions of invariable and interchangeable labor units and the nonexistence of land and capital as factors in production, would hold *only* under such assumed conditions, unless it could be definitely *proved* that the equivalence holds also under other conditions, in which event the hypothetical alternative conjecture would be needless. No proof has ever been offered, under conditions where labor varies with time and place and is not interchangeable for the most part and where land and capital do enter with labor as factors in production, that the labor a commodity commands is synonymous with embodied labor.

If a tramp is handed by the housewife a loaf of bread, bought from a million-dollar baking corporation, in return for twenty minutes' work on the woodpile, it is hardly rational to say that twenty minutes of labor have in some way become embodied in the bread, when capital and land were the chief factors actually involved in its production. If something more reasonable is meant, an attempt should be

made to reduce the capital and land involved in the manufacture of the bread to some commensurable unit, not forgetting the while to reduce the fifty-seven varieties of skilled and unskilled labor also involved. Such a reduction Adam Smith rightly regarded as impossible, but he apparently failed to see the fallacy lurking in the substitution of his alternative "commanded labor" measure. Ricardo recognized the fallacy of the substitution but felt that, if the embodied-labor measure once held in primitive society, it should also, even though qualified, hold in a more complex society.¹² Hence he set about the task of reducing "the necessary expenditure of labor and capital" to "embodied labor."

SECTION 30. THE RICARDIAN COST DOCTRINE

Ricardo is so outstanding in the history of cost theory that one is tempted, in a volume such as this, to devote a disproportionate amount of space to the development of his doctrinal thought. It is essential that the student of the subject be familiar with Ricardo. Fortunately his writings have been most thoroughly and clearly analyzed elsewhere.¹³ All that need be attempted here is a brief outline of outstanding characteristics.

In his early study of the subject of value, Ricardo followed Adam Smith, with the main exception, noted already, that he refused to accept the "commanded labor" doctrine. At this time and for sometime thereafter, Ricardo's theory of cost seems to have been for the

¹² *Principles* (1817 ed.), pp. 6-11. Speaking here of Smith's commanded labor theory, Ricardo wrote:

"... Sometimes he speaks of corn, at other times of labour, as a standard measure; not the quantity of labour bestowed on the production of any object, but the quantity which it can command in the market: as if these were two equivalent expressions, and as if because a man's labour had become doubly efficient, and he could therefore produce twice the quantity of a commodity, he would necessarily receive twice the former quantity in exchange for it.

"If this indeed were true, if the reward of the labourer were always in proportion to what he produced, the quantity of labour bestowed on a commodity, and the quantity of labour which that commodity would purchase, would be equal, and either might accurately measure the variations of other things: but they are not equal."

¹³ Cf. Hollander, "Ricardo's Theory of Value," pp. 455-491, and *David Ricardo, a Centenary Estimate; Letters of Ricardo to McCulloch*, ed. Hollander (New York, 1895); *Letters of Ricardo to Trower, 1811-1823*, ed. Bonar and Hollander; and *Letters of Ricardo to Malthus, 1810-1823*, ed. Bonar.

most part secondary to his attack upon more practical public questions.¹⁴ During the second decade of the nineteenth century, he became involved in the corn-law controversies of the day, taking an unorthodox position with respect to wages, profits, interest on the national debt, and the general price level. He entered into active discussion on these matters with Malthus, McCulloch, and others, and it was apparently to reinforce his practical proposals that he at this time extended somewhat his doctrinal theory of cost, still not in any systematic way however.

In the first edition of his *Principles*, Ricardo indicated that one of his purposes with respect to value theory was "to determine how far the effects which are avowedly produced on the exchangeable value of commodities, by the comparative quantity of labour bestowed on their production, are modified or altered by the accumulation of capital and the payment of rent."¹⁵ His main purpose, however, was apparently not this, but rather to indicate the relation of profits to price; and he freely admitted exceptions or qualified his embodied-labor theory provided his main purpose was being served. With respect to rent, he summarily disposed of its possible influence on price by his now well-known doctrine that "land," in the form of raw materials and the like, enters into most commodities, but that price is determined at the margin of cultivation where there is no rent.¹⁶ Regarding the influence of capital, he experienced some difficulties in his argument but surmounted them in part by admitting exceptions (as when capital goods of unlike quality or degrees of durability are employed) to the general rule that, ordinarily, embodied labor should be thought of as including not only the immediate labor entailed in processing a commodity and bringing it to market, but also the labor required to create the capital used in the productive process.¹⁷ By including both immediate and past labor in his doc-

¹⁴ Some recent authors appear to disagree with the more generally held point of view regarding Ricardo's primary early interest in practical problems. Cf. Edward S. Mason, "Ricardo's Notes on Malthus," *Quarterly Journal of Economics*, Aug., 1928, pp. 684-696 (687-688).

¹⁵ *Principles* (1817 ed.), p. 16.

¹⁶ *Ibid.*, p. 67. This, of course, assumes conditions of freely operating competition as applied to land.

¹⁷ *Ibid.* (1821 ed.), pp. 36-41.

trine, and denying the influence of land, Ricardo maintained that embodied labor remains a proper measure of price in modern as well as in primitive societies, taking heed of "unimportant" exceptions and qualifications.

This more extended though still somewhat incidental exposition of Ricardo's cost doctrine turned the attention of critics from his practical contentions regarding profits and wages and prices (his chief contention at the time being that higher wages do not necessarily mean higher prices) to his embodied-labor arguments, and the resultant clash of opinion served to win over one of his most powerful previous antagonists, McCulloch. Thereafter the latter did much, in his positive manner, to spread the Ricardian doctrine. At the same time he simplified it artificially and stated it with too much precision and absoluteness to suit his mentor. From this period onward, because of both his friends and his critics, Ricardo was forced increasingly to defend, to expound, and to explain his position in detail.

Among Ricardo's main antagonists at the time were Torrens and Malthus. McCulloch and James Mill had become his chief supporters, but they soon grew restive with his qualifications and exceptions, being carried away with his fundamental doctrine and seeing less than he did its shortcomings. Torrens undertook a vigorous attack on the Ricardian position toward the end of 1818, and this attack McCulloch answered, but not to the satisfaction of Ricardo, who was apparently considerably impressed with some of the criticisms.¹⁸ As a result, Ricardo began to admit the "time" element as another condition with respect to a strict embodied-labor measure of price, and a year later he wrote: "I am more convinced than ever that the great regulator of value [price] is the quantity of labour required to produce the commodity valued. There are many modifications which must be admitted into this doctrine, from the circumstance of the unequal times that commodities require to be brought to market, but this does not invalidate the doctrine itself."¹⁹

The next spring Malthus's *Principles of Political Economy* appeared, and in it a still stronger case was made out for the time ele-

¹⁸ Cf. Robert Torrens, *Cash Payments with Strictures on Ricardo* (London, 1819) and Hollander, *Letters of Ricardo to McCulloch* (hereinafter cited as *Letters*), pp. 15-16 n.

¹⁹ *Letters*, pp. 47-48 (Dec. 18, 1819).

ment in conditioning price determination. Again McCulloch answered in his usual formalistic and dogmatic way,²⁰ which seemed to take care of the strictures of Malthus, but once more only raised further questions in Ricardo's mind, for he now wrote to his disciple: "After the best consideration that I can give to the subject, I think that there are two causes which occasion variations in the relative value [price] of commodities: 1st, the relative quantity of labour required to produce them; 2nd, the relative times that must elapse before the result of such labour can be brought to market."²¹

This suggestion that the elapsed-time factor be given a co-ordinate place with embodied labor as a measure of price met with strong opposition from both McCulloch and James Mill, who continued unyielding in their adherence to a strict embodied labor measure and who between them succeeded in persuading Ricardo to take a less positive stand in revising his *Principles* in 1821.²² In meeting additional attacks from a number of quarters, Ricardo was nevertheless forced to give further consideration to exceptions and qualifications, and this he continued to do with painstaking care and discernment.

Malthus particularly challenged him further by espousing Smith's alternative commanded-labor theory, insisting that this was more practical and serviceable than Ricardo's doctrine with all its modifications and exceptions. Ricardo replied that, if a practical rather than a fundamental measure was wanted, a standard such as money, made up of wages and profits, was even more satisfactory than commanded labor. Writing to McCulloch at this time regarding his reply to Malthus, Ricardo said:

... Value [price] is compounded of two elements, wages and profits, mixed up in all imaginable proportions; it is vain, therefore, to attempt to measure accurately, unless your measure agrees precisely in the proportion of wages and profits with the commodity measured. A commodity which has wages in it alone, and no profits, and this is Malthus' measure, is not an accurate measure for commodities which have both labour and profits in them. All we can do

²⁰ *Ibid.*, p. 63 (May 2, 1820). Cf., also, Thomas R. Malthus, *Principles of Political Economy* (Boston, 1821), and James R. McCulloch, *The Principles of Political Economy* (Edinburgh, 1825).

²¹ *Letters*, p. 65 (May 2, 1820).

²² Cf. James Mill, *Elements of Political Economy* (London, 1821), pp. 72-75.

is to make the best choice amongst confessedly imperfect measures, and I should have no hesitation in choosing Malthus', if the number of commodities produced by labour alone were the most numerous; but as the contrary is the fact, as the great mass of commodities is produced by the union of labour and capital for a certain length of time, I have nothing to amend in the choice I have made. I consider it a mean. Malthus' is at one extreme of the scale, old oak trees are at the other. In one there is nothing but labour, in the other there is nothing but accumulations of capital from profits with scarcely any labour whatever, and therefore they are both unfit measures of value.²³

Note how Ricardo tended to use labor and wages synonymously in this statement, confusing subjective with objective conceptions of cost. Whether Ricardo's reply to Malthus and subsequent discussion constituted a virtual abandonment of his earlier embodied-labor theory of cost as a measure of price, which had come to be worn too thin and had been qualified too much in the long controversies, or whether Ricardo was simply attempting to meet the commanded-labor theory, and Malthus's championship of it, on its own grounds, it is difficult to determine. The latter alternative is more in keeping with Ricardo's logical processes. But, be that as it may, many modern critics find in such a statement as the above the beginnings of "price economics," the sanction for the doctrine that the best measure of price is not subjective cost at all but money cost.

From the foregoing brief sketch of the development of Ricardo's thought, it is evident that his cost doctrine underwent a distinct evolution. It is easy to free certain parts of his argument from their context and to show what seem like contradictions; but taken as a whole, the doctrine exhibits a consistent and logical growth. From his early opposition to Adam Smith's commanded-labor notion and his advocacy of the embodied-labor theory, he passed successively from one modification or qualification to another until the time came when he regarded "labor and time" as a more exact measure of price than embodied labor alone. At the very end he seemed to falter and to suggest another alternative—that is, money cost in place of subjective cost.

²³ *Letters*, letter of Aug. 21, 1823, p. 177; also, *The Works of David Ricardo*, ed. McCulloch (London, 1846).

SECTION 31. THE ALTERNATIVE DOGMA IN THE MAKING

The criticism previously presented of the "alternative-use" dogma as a pseudoscientific fabrication may now be supplemented with the observation that "commanded labor" as an alternative for "embodied labor" may be regarded as the logical forebear of "alternative use."²⁴ These "alternative" conceptions present similar pitfalls of reasoning. In addition, the "money-cost" theory, which Ricardo appeared to set forth as a final answer to Malthus, partakes of the same difficulty. Much as commanded labor was suggested as an "alternative" to embodied labor, so money cost may be put forth as an "alternative" to commanded labor. "Money costs," as here used, might well be called the "commanded-money" theory.

Starting with the assumption of a primitive economy (hypothetical and unreal) in which labor units were thought of as invariable and interchangeable and in which land and capital as factors of production were regarded as nonexistent, the concepts of embodied labor and commanded labor were seen to be equivalent, so that either might be used as a measure in hypothetical exchange relations. Thus was an "alternative" established. Then by the device of abandoning the hypothetical and unreal assumption, which alone gave the "alternative" meaning, the false generalization was made that the "alternative" might be utilized in a real and complex society when it was observed that the original embodied-labor measure did not apply. This was Adam Smith's method, not Ricardo's, and its shortcomings have doubtless already been sufficiently indicated.²⁵ The other "alternative" Adam Smith did not stress, namely, that, under his hypothetical and unreal conditions, not only would embodied labor and commanded labor come to the same thing but so would "commanded money" also.²⁶ A certain number of invariable and interchangeable units of embodied labor (say x) would not only always command x units of this invariable labor at any time, but the price of the x units would also always be the same (say y), since this is the very essence of the assumption, that *nothing else* is thought to influence the measure of price except the invariable and interchangeable

²⁴ Cf. chap. vii, above.

²⁵ Cf. sec. 29, above.

²⁶ Cf. Patten's comments regarding Smith's and Ricardo's position on this score: Simon N. Patten, *Dynamic Economics* (Philadelphia, 1892), pp. 27-28.

labor units themselves. The three "alternatives" are thus inextricably bound up with an unreal assumption.

In a real society, where labor is not for the most part invariable and interchangeable and where land and capital and also management exist as additional factors in production, "embodied labor" *might* nevertheless measure price; so might "embodied land" or "embodied capital," or any combination of these; but whatever *did* measure price would have to be demonstrated from the conditions of that society itself, not from something hypothetical which might or might not exist elsewhere or at another time. In a real society, something "commanded" (whether labor or capital or money or whatnot) *might* measure price, but again this would have to be *proved*; it could not be held to be self-evident. And whether there happened to be any relation between "embodied labor," "commanded labor," and "commanded money," in such a real society, would likewise have to be demonstrated, not taken for granted. Adam Smith was certain that embodied labor was not a proper measure in the real society about him; his error lay in assuming without proof that commanded labor was identical with embodied labor in such a society. Ricardo refused to be misled by the assumed identity between these two "alternatives" in the society in which he found himself, but thought that for the most part the embodied-labor theory might actually fit it (eliminating scarcity values as "unimportant" and assuming for the purpose interchangeable labor units under completely competitive conditions); his qualifications and later admission of the time element, even under idealized competitive conditions, may have discouraged him in the end; whether he actually espoused the third "alternative" or not, his mention of money cost served to sow the seed of further misunderstanding later on. From his day (and from Adam Smith's day) to this, the "alternative" fallacy has remained to plague the economist.²⁷

There is doubtless today no real student of economic phenomena who would be misled by the bald assertion that money costs measure price. Money costs, it is now generally understood, are the pecuniary outlays made by the businessman in the form of wages, interest, cost of raw materials, and so on, in the process of bringing his com-

²⁷ Cf. chap. vii, above.

modity to market. Such expenses are themselves prices; and, as suggested in the quoted statement at the beginning of this chapter, it certainly does not get us anywhere to say that prices are measured by costs if those costs are found in the end to consist only of other prices. As has been evidenced throughout the whole development of cost theory, it is the "real" costs lying behind these monetary outlays that students of economic value have been seeking. Hence the fundamental distinction between money costs and subjective costs.²⁸ And yet, by the use of the "alternative" device, it has frequently happened that this fundamental distinction has been blurred or obliterated completely, while at the same time the illusion has been created that the distinction has in reality been preserved and that an exact and measurable relationship has been established between these two contrasted cost concepts and money price. The Austrians later added to the subtleties of such a devious device by substituting "money expense" for "cost" at the beginning of a long and tortuous argument, and then making the "discovery" at the end that these two factors are "equal" and "alternative."²⁹ Green interpreted this maneuver as "alternative use" or "opportunity lost" and started the vogue of the "might-have-beens."³⁰ And, still later, Davenport utilized the same dexterous artifice in projecting an alternative "shadow desire," exactly equivalent to and competing with every actual desire, in his attempt to measure "utility" in terms of price offers.³¹

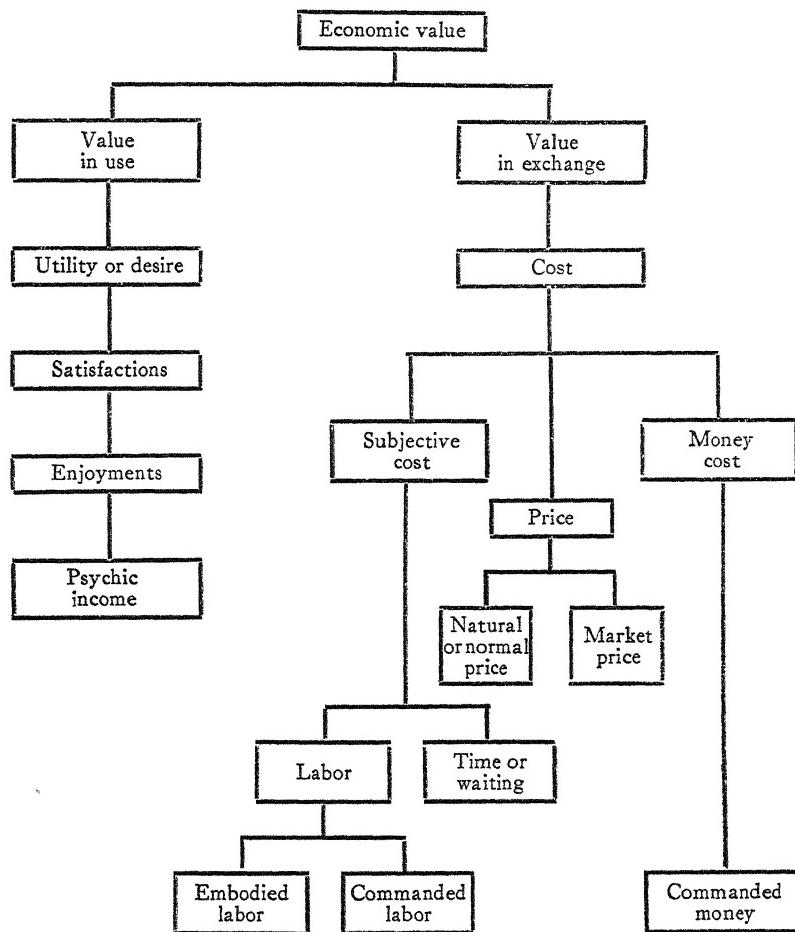
The main economic value concepts employed in classical doctrine, including several to be taken up later on when utility theory is further examined, may now be shown diagrammatically by amplifying the chart presented in the preceding chapter, as follows:

²⁸ Cf. Taussig, *Principles of Economics*, I, 169; Bye, *op. cit.*, p. 30; and Mason, "The Doctrine of Comparative Cost," p. 76.

²⁹ Cf. chap. vii, above.

³⁰ *Ibid.*, sec. 24.

³¹ Cf. Herbert J. Davenport, *The Economics of Enterprise* (New York, 1913), pp. 84-104; also chap. xiv, sec. 46, below.



CHAPTER X

RISE AND DECLINE OF COST THEORY

IT IS NOT the purpose in these pages to trace in any systematic way the historical evolution of economic thought. The concern is rather with an analysis of the fundamentals of classical value theory. Smith and Ricardo did exceedingly important work in providing the foundations for such theory, but at the same time they gave color to nearly all the major difficulties with which the economist has since had to contend. After their day, the classical structure of cost doctrine needed few additions before it reached its apogee. From this point of view, the doctrinal refinements of the followers of Smith and Ricardo need not detain us long, even though their contributions in other directions may have been of considerable import.¹

SECTION 32. DEVELOPMENTS IN CLASSICAL COST DOCTRINE AFTER 1823

After Ricardo's death in 1823, the development of cost theory received what may be regarded as a setback in two directions: one,

¹ For the historical development of classical cost theory, in addition to works already cited, see: Sir William J. Ashley, *An Introduction to Economic History and Theory* (New York, 1894); Walter Bagehot, *The Postulates of English Political Economy* (London, 1860); Frédéric Bastiat, *Harmonies of Political Economy* (London, 1860); James Bonar, *Philosophy and Political Economy in Some of Their Historical Relations* (New York, 1893), and "The Economics of John Stuart Mill," *Journal of Political Economy*, Nov., 1911, pp. 717-725; Goetz Briefs, *Untersuchungen zur Klassischen Nationalökonomie* (Jena, 1915); Edwin Cannan, *A Review of Economic Theory* (London, 1929); Richard T. Ely, "The Past and Present of Political Economy," *The Johns Hopkins University Studies*, VII (Baltimore, 1884); Charles Gide, *History of Economic Doctrines*, tr. Richards (Boston, 1915); Benedikt E. Güntzberg, *Die Gesellschafts- und Staatslehre der Physiokraten* (Leipsic, 1907); Louis H. Haney, *History of Economic Thought* (New York, 1912); Henry Higgs, *The Physiocrats* (London, 1897); John K. Ingram, *A History of Political Economy* (London, 1887); Wesley C. Mitchell, "Postulates and Preconceptions of Ricardian Economics," in *Essays in Philosophy*, ed. T. V. Smith and W. K. Wright (Chicago, 1929), pp. 39-59; Sir Robert H. I. Palgrave, *Dictionary of Political Economy* (London, 1894); Simon N. Patten, *Essays in Economic Theory* (New York, 1923), pp. 19-32, 144-163; Henry Sidgwick, *Scope and Method of Economic Science* (London, 1885); Leslie Stephen, *The English Utilitarians* (3 vols.; London, 1900), Vols. II and III; Georges Weulersse, *Le Mouvement Physiocrat-*

by means of questionable dialectic, in various attempts to render subjective cost equal to money expense; the other, through the influence of Malthus, McCulloch, and James Mill, in an inflexible advocacy of a rigid embodied-labor or the alternative commanded-labor dogma. For a time doctrinal refinements took precedence in economic theorizing and weak spots in the classical structure of deductions were glossed over. This refined system of abstractions reached its most forceful expression in the work of John Stuart Mill (1806-1873), after which it began to decline; for by this time opponents had become more numerous and insistent; the admissions of the younger Mill were opening up further grounds for critical attack; a breaking away from the rigidity of James Mill and McCulloch was resulting in a return to a more rational analysis of cost (by Senior and Cairnes), similar to Ricardo's but with attempt at formulating a homogeneous labor measure being gradually abandoned; the postulates underlying the cost analysis of price were themselves finally being brought into serious question; and a new school (the Austrian) was arising to take issue at all points with the classical cost dogmas.

By the time John Stuart Mill prepared to launch his *Principles* in 1848, critics of the classical cost theories had already made attacks along a rather wide front, so that Mill found it necessary to attempt a restatement and reconciliation of the classical point of view in the light of current ideas regarding social reform. His work, therefore, represents a transitional stage, one in which the Smith-Ricardian views were rephrased to fit the contemporary mood. Much rationalization is found in Mill, as in his continuance of the notion that scarcity values are "rather conceivable than actually existing."²

Mill admitted that "the value of the product cannot be determined solely by the quantity of labour,"³ but in going further he immediately confused money costs with real costs by stating that "the relative wages of the labour necessary for producing different commodities

tique en France (de 1756 à 1770) (2 vols.; Paris, 1910); also, *Les Physiocrates* (Paris, 1931); Albert C. Whitaker, *History and Criticism of the Labor Theory of Value in English Political Economy* (New York, 1904). Cf., also, Charles R. Fay, *Great Britain from Adam Smith to the Present Day* (New York, 1928); Eli Ginzburg, *The House of Adam Smith* (New York, 1934).

² *Principles of Political Economy* (Ashley ed.; New York, 1909), p. 479.

³ *Ibid.*, p. 459.

affect their value just as much as the relative *quantities* of labour." In short, he perpetuated the confusion between commanded money and commanded or embodied labor.⁵

This "alternative" beclouding of the issue was in part repeated by Senior,⁶ who nevertheless marked an advance by resurrecting Ricardo's idea of "time" (he used the expression "abstinence" instead), while Cairnes dragged the "alternative" sophistry fairly well into the open. In addition, Senior disagreed with John Stuart Mill regarding scarcity values, insisting that monopoly conditions were much more "existing" than merely "conceivable."

Cairnes was emphatic regarding the danger of mixing real costs with money costs. "I must," he stated, "insist that cost means sacrifice, and cannot, without risk of hopelessly confusing ideas, be identified with anything that is not sacrifice."⁷ It is not wages or other payments, but the disagreeable efforts involved in labor, abstinence, and risk which constitute the real costs of production, determining exchange values "only so far as there exists free competition" among producers.⁸ Cairnes did, it is true, continue to lend color to the thought of sacrifice as something ponderable, as something that could be weighed and measured (as though muscle strain and irksomeness, abstinence and nervous impatience, risk and mental worry could be reduced to a common denominator and summed up in terms of some homogeneous standard unit of subjective cost);⁹ but his return to Ricardian consistency brought to the fore again the essential weakness of subjective cost as a putative measure of price, even within the assumption of freely operating competition. He then went on to elaborate Senior's suggestion regarding the importance of scarcity conditions, in the enunciation of his now famous

⁵ *Ibid.*, p. 461. Cf., also, Mill's *Essays on Some Unsettled Problems of Political Economy* (London, 1844).

⁶ Cf. Mason, "The Doctrine of Comparative Cost," p. 76.

⁷ Nassau W. Senior, *Political Economy* (6th ed.; London, 1872). Senior defined cost as "the sum of the labor and abstinence which its production requires; or, to use a more familiar expression, . . . the amount of the wages and profits which must be paid" (*ibid.*, pp. 98-102).

⁸ *Some Leading Principles of Political Economy* (London, 1874), p. 60, and *The Character and Logical Method of Political Economy* (London, 1857).

⁹ Cairnes, *Some Leading Principles of Political Economy*, pp. 79-81.

¹⁰ Cf. Mason, "The Doctrine of Comparative Cost," p. 79.

doctrine of noncompeting groups, which definitely challenged the free competition assumption itself.¹⁰

At the same time, the stone rejected by Smith and Ricardo in the building of their price edifice—utility—was being employed by the Austrians as the cornerstone of what to them appeared at first to be a quite different structure. The cost and utility advocates came to grips during the closing decade of the last century, in the literature of which period are found, on the one hand, profound analyses and clarifications of some of the existing sophistries, and, on the other hand, the still more subtle refinement and perpetuation of others.¹¹

SECTION 33. CONDITIONS INCIDENT TO RISE AND DECLINE OF COST THEORY

At least three circumstances account for the rise and decline of cost theory: first, the earlier and cruder cost doctrine (preceding the application of marginal refinements) explained the so-called paradoxes of value better than did the earlier utility theory;¹² second, conditions in the first quarter of the nineteenth century were favorable to its ascendancy, whereas those of the last quarter were unfavorable to it;¹³ and, third, its inherent deficiencies were finally so thoroughly laid bare, after nearly a century of controversy, that it could no longer hold its own against a new theory, the shortcomings of which had not yet been explored.

First: The historical paradoxes of value were three. “The most useful things, like air and water,” wrote Macfarlane, “are usually without value [price]. Useful things, like iron and copper, are not valued [priced] so highly as less useful things, like gold or diamonds. By decreasing the supply of a commodity, and consequently the total utility to be obtained from it, the total value [price] may be increased.” The earlier cost theory, viewing the question of price determination from the standpoint of supply, attempted to resolve these paradoxes by way of the contentions that air and water have

¹⁰ Cairnes, *Some Leading Principles of Political Economy*, pp. 72-75; also, Bye, “The Nature and Fundamental Elements of Costs,” p. 32.

¹¹ Cf. chap. xi, below.

¹² Cf. Charles W. Macfarlane, *Value and Distribution* (rev. ed.; Philadelphia, 1911), p. 30. [Original edition, 1899.]

¹³ *Ibid.* pp. xix-xxi.

no price because they have no "cost," that gold and diamonds "cost" more than iron and copper, and that an arbitrary reduction of a supply, amounting to destruction, is not in keeping with the ordinary way of limiting a supply, which is through cost of production.¹⁴ The earlier utility theory, approaching the problem from the point of view of demand and holding that commodities command a price because they are useful, failed completely to explain any of the paradoxes of value. "It was doubtless this failure of the earlier utility theory of value that compelled men to have recourse to the cost theory, in which they found a more or less satisfactory explanation of these paradoxes."¹⁵

Later on, toward the end of the third quarter of the nineteenth century, the marginal doctrine (first proposed by Gossen in 1854 but not accepted till the work of Jevons, Walras, and Menger appeared around 1871) came into the ascendancy. By drawing attention, in the putative valuation process, to the last or marginal increment of supply or demand, the influence of marginalism upon cost theory was largely in the direction of refinement, but in utility theory it resulted in a transformation. Where none of the paradoxes of value could be explained by the earlier utility theory, the application of marginalism seemed to explain them all. Air and water command no price, it was held, because they are available in such quantity that their "marginal utilities" are zero; iron and copper, being more abundantly used than gold and diamonds, have lower "marginal utilities" and thus lower prices; the destruction of a supply raises the margin of utility and thus increases price, not only unit price but sometimes total price.¹⁶

Second: In the first quarter of the nineteenth century when cost theory became dominant, conditions were decidedly in its favor. In England, for example, trade restrictions were yielding to the onset of the industrial revolution; steam power and the factory system

¹⁴ *Ibid.*, pp. 19-20.

¹⁵ *Ibid.*, p. 30.

¹⁶ *Ibid.*, pp. 31-41; also, Eugen von Böhm-Bawerk, *The Positive Theory of Capital*, tr. William Smart (London, 1891), chap. iv, pp. 146-153. The marginal argument is based upon the alleged operation of the "law of diminishing utility." However, with respect to the paradoxes of value, the diminishing-utility reasoning fails to take into account an important distinction between possessive and consumptive interests, mentioned in a quotation from Taussig, chap. xiii, n. 25, below.

were replacing household industry; and the old crafts and guilds had virtually disappeared. A powerful new middle class of industrialists had become a potent force in governmental affairs, was fighting the corn laws, and was favoring a reduction of import duties. Early nineteenth-century English economists, seeing this rapid breakdown of traditional restrictions and customs, thus "concluded that the day was not far distant when the ideal of free competition would be realized in the actual facts of industrial life." In sharp contrast were conditions in the last quarter of the century. Improved agricultural methods had restored the "ten-thousand-acre" farms; labor was rapidly being organized; and industry was becoming highly capitalized and monopolistic in its tendencies—facts which evidenced "the utter collapse of that ideal of free competition which Mill thought was about to be realized."¹⁷

Picturing the tendency toward monopoly control that had set in, John Bates Clark and Franklin H. Giddings wrote at the time: "Just when the disappearance of the last vestiges of a volitional restriction of competition was looked for, and the universal application of the 'rule of the market' was confidently expected, we see a widespread revival of economic methods and agencies over which 'The Wealth of Nations' was read as a funeral service."¹⁸ Since the cost theory was based upon the assumption of free and open competition, with scarcity conditions "rather conceivable than actually existing," the realization which became acute toward the close of the century that this assumption did not accord with the facts would doubtless ultimately of itself have been sufficient to spell the doom of the cost dogmas.

Third: Along with the two foregoing external circumstances conditioning the rise and decline of cost theory, was the gradual coming to light of some of the internal shortcomings dealt with in the preceding chapter.

In an authoritative series of articles on the subject by Frank A. Fetter, written about twenty years ago, six reasons are given for the downfall of the theory, the shift in emphasis from subjective cost to money expenses being regarded as the major cause:

¹⁷ Macfarlane, *Value and Distribution*, pp. xx-xxi.

¹⁸ *The Modern Distributive Process* (Boston, 1888), p. 20.

(1) Because of the emphasis placed by cost economists upon employers' profits as an index or source of general welfare, various attempts were made to secure legislation for what in reality were contradictory ends, one of these attempts being the efforts of factory-law reformers in behalf of a shorter working day, on the assumption that this would increase profits—efforts which the employers themselves did not seem to appreciate.

(2) General emphasis upon money as a measure of welfare also led to an ethical protest through literary channels, sponsored by outstanding writers, such as Carlyle, Ruskin, and Emerson. Carlyle, interpreting what constitutes the well-being of man, stated that there are "many things, of which the wages he gets, and the bread that he buys with them, are but one preliminary item." Ruskin summed up the matter by saying: "That country is the wealthier which nourishes the greatest number of noble and happy human beings." Emerson insisted that the best political economy lies in "the care and culture of men."

(3) The English Christian Socialists, enlarging upon the ideas of Carlyle and Ruskin, gathered a large following and did much to discredit the orthodox cost theorists.

(4) More radical thinkers, like Karl Marx and Henry George, carried the classical labor theory to what seemed like absurd extremes. That Marxian socialism and Georgian land-confiscation doctrines could be built upon the foundations of cost theory forced students of economics to re-examine somewhat more carefully the whole basis of price determination.

(5) The workingman himself protested against a system which denied the power of labor unions to raise wages and which regarded the welfare of labor as dependent upon the prosperity and altruism of employers. The fact that organized labor was able to raise wages, despite denials of this possibility from the cost advocates, naturally operated further to discredit the latter.

(6) The internal disintegration taking place in cost theory gradually led to a change of opinion among economists themselves.¹⁹

¹⁹ Frank A. Fetter, "Price Economics vs. Welfare Economics," *American Economic Review*, Sept., 1920, pp. 467-487 (479-480); "Price Economics vs. Welfare Economics: Contemporary Opinion," *American Economic Review*, Dec., 1920, pp. 719-737; "Value and the Larger Economics," *Journal of Political Economy*, Oct., 1923, pp. 587-605;

In the articles to which reference is here made, a brief was being held for the utility school; and criticisms of cost theory were being put forth without much thought that some of them might apply with equal validity to utility theory also, except the "protest" offered by Fetter that whatever difficulties the Austrians were encountering had been inherited from the older classicists.²⁰

Having been long established, the cost theory, quite apart from the inherent shortcomings analyzed in the preceding chapter, had to bear the brunt of criticism that might have been applied with equal force to any other purely quantitative doctrine of price determination, whereas at the beginning of the present century and for sometime thereafter the utility hypothesis had all the advantage that any new theory about to displace an older one usually possesses.

Dec., 1923, pp. 790-803. Cf., also, his "Definition of Price," *American Economic Review*, Dec., 1912, pp. 783-813.

²⁰ In view of the vagueness already referred to (cf. sec. 21, above) of the concepts "utility" and thus "value-in-use," no constructive purpose can be served, in this chapter and in following chapters, by drawing sharp differentiations between the schools of Jevons, the Austrians, or other classical and neoclassical "utility" schools.

CHAPTER XI

AUSTRIAN CRITICISM OF COST THEORY

IN THE HISTORIC clash between the Austrians and the older classicists, the former were represented by such eminent thinkers as Wieser and Böhm-Bawerk on the Continent and by Green and Patten in the United States. Among those who at the same time bore the brunt of guarding the classical cost position was Silas M. Macvane of Harvard, whose offensive thrusts seldom failed to disclose his opponents' weaknesses.¹ Nevertheless, the classical cost position was by this time so vulnerable at points long besieged that the defensive thrusts of Macvane—too consistent and open a combatant to avoid vital issues—were for the most part given in a cause already lost.

SECTION 34. MACVANE'S ANALYSIS OF COST ELEMENTS

Macvane considered "labor and waiting" as the ultimate elements of subjective or real cost. Labor he subdivided into three parts: first, the labor that is being applied at the last stage of the productive process in the completion of a commodity; second, the labor spent upon the raw materials (as wool and yarn) which are to be utilized in the making of a finished product; third, "the labor of providing requisite machinery for carrying on the various parts or stages of the whole process." He concluded: "Let us then, when we name labor as an element in the cost of production of any commodity, admit freely the labor of all sorts from beginning to end."

Regarding the other important cost element, the time or abstinence factor, which he preferred to call "waiting," Macvane admitted that there was a difference of opinion as to its precise nature, some contemporary economists going so far as to call it "impatience"; but despite the particular expression preferred, this element was in

¹ Cf., chap. vii, sec. 24, above; also, Henry W. Stuart, "Hedonistic Interpretation of Subjective Value" and "Subjective and Exchange Value," *Journal of Political Economy*, Dec., 1895, pp. 64-84; March, 1896, pp. 208-239; June, 1896, pp. 352-385.

general thought of as based upon the fact that the productive process is roundabout and spreads over a considerable period of time: "Partly, this is due to nature's way of doing her share of the work; she takes time to mature the fruits of human labor.... In part, also, the delays of production are due to men's own need of time for doing their share of the work.... Human impatience for speedy enjoyment of good things makes the necessary slowness of production a burdensome feature of it." Summarizing the whole matter of cost elements, Macvane wrote further: "These two sacrifices, that of labor and that of waiting, seem therefore to stand on the same level as elements of cost of production."²

Macvane next took up a subject of considerable controversial importance at the time, namely, the relation of capital to past labor. Replying to a criticism of his position on this subject by one of the outstanding Austrians, he said:

Dr. von Wieser apparently thinks the classical definition of cost requires that the capital now in use should have been produced by the men of today without the aid of previous capital. This is a misapprehension of the definition, since those who hold it have never so understood it. If it be granted that all capital, whether new or old, is a product of human industry, the definition carries its own justification. The capital now in use is undoubtedly, to a large extent, a product of the labors and waitings of past generations of men; but it is none the less a product of labor and waiting.... The fact that the existing capital is largely a legacy from past times, has, I think, no other bearing on the relation of capital to cost than that here indicated. Capital being in all cases merely the result of labor applied to production in certain ways, it cannot be a new element of cost different from the labor and waiting that produced it.³

In another connection Macvane had observed: "The classical conception of cost may not be without flaw, but it has at least the merit of addressing itself to those features of production that men must always and everywhere *feel* as cost. The cost that comes home to producers in the form of tired muscles and tedious waiting for the

² "The Austrian Theory of Value," pp. 16-18. Cf., also, Henry R. Seager, "The Impatience Theory of Interest," *American Economic Review*, Dec., 1912, pp. 834-851; and chart, p. 123, above.

³ "The Austrian Theory of Value," pp. 28-29.

enjoyable fruits of labor is not one that finds expression in terms of utility or value.”⁴

So much for the classical position of the nineties with respect to cost elements as such. As for the relation between them, it was still being taken for granted that such an expression as “75 units of labor and waiting” was entirely permissible; that is, the “units” were regarded as in some way commensurable and homogeneous.⁵ And, of course, the whole argument regarding cost elements and homogeneous units of labor and waiting remained introductory to the chief contention that cost of production, as the older classicists conceived it, determined and measured price.

SECTION 35. SEVERAL AUSTRIAN OBJECTIONS

Examining in a preliminary way the Austrian criticisms, we find that the one most frequently encountered in the days of Macvane had to do with the seeming lack of concordance between the cost theory and the actual facts of the market. Wieser, in the discussion referred to above, had written on this score: “According to the labor theory, labor should be estimated and paid in proportion to the effort and danger which it involves,” whereas the merest glance at actual market conditions reveals that wages for labor are not determined in any such way. In short, labor is not paid for in proportion to hardship, exertion, and danger. “All artifices of dialectics will prove nothing against the silent sighs which accompany the hard labor of the poor.”⁶

Green also voiced strong objection along similar lines, presenting a rather apt illustration:

A scientist receives twenty-five dollars for delivering a lecture, and pays the same amount to a laborer for constructing a drain from his cellar. May we then expect that the scientist and the laborer have suffered the same amount of disagreeable sensation in performing their respective services? Of course, we must not stop with the consideration of the disagreeable feelings (if there were such) experi-

⁴ “Marginal Utility and Value,” p. 269.

⁵ Cf. Macvane, “The Austrian Theory of Value,” p. 36.

⁶ Frederick von Wieser, “Theory of Value,” *Annals of the American Academy of Political and Social Science*, March, 1892, pp. 34-35.

enced in merely delivering the lecture. The ability of the scientist is doubtless due in part to extended training, and this training may have been unpleasant and wearisome. If so, some small fraction of this pain must be added to the immediate discomfort of preparing and delivering the lecture. Thus in some such cases we might find a considerable pain-cost on the part of the lecturer; but, if our scientist deserves that name, and enjoys good health, he would probably report that every part of his preparation and service gave him pleasure rather than pain.... When all the discomforts involved in rendering the twenty-five dollar services are added together, if the laborer proves to suffer the most, it does not necessarily follow that his pay will tend to rise relatively to that of the lecturer.

But it may be said that the services of the scientist bring a high price because his special ability is rare, and the scarcity interferes with the economic forces which would otherwise be operative. This is undoubtedly true, but the theory of value which omits the element of scarcity has but slight application in the economic world.⁷

The last paragraph of this quotation from Green will serve as an introduction to a second preliminary criticism by the Austrians. By the time Green wrote (1894), the fallaciousness of the dictum of John Stuart Mill that scarcity conditions are "rather conceivable than actually existing" had become quite generally apparent. Ricardo had admitted exceptions to what he regarded as the general rule of free and unrestrained competition, which exceptions proved formidable enough, including, as they finally did, rare works of art, books, coins, wine, products of more favorable lands, and the results of the use of capital. Regarding the last mentioned, Ricardo had written: "The principle that the quantity of labor bestowed on the production of goods regulates their relative value [is] considerably modified by the employment of machinery and other fixed and durable capital."⁸ To this list of exceptions to free competition, Cairnes later added the effects of noncompeting groups of laborers,⁹ and the Austrians, in turn, added the monopolistic values created by patent, copyright, and tariff protection, and those resulting in short-term deviations from an otherwise assumed "normal" price.

⁷ "Pain-Cost and Opportunity-Cost," pp. 219-220.

⁸ *Principles of Political Economy and Taxation*, caption title, sec. 4, p. 25.

⁹ *Some Leading Principles of Political Economy* (London, 1874), pp. 72-75.

Some modification of these exceptions was made when it was demonstrated that marginalism applies to cost as well as to utility;¹⁰ but in the end, with the Austrian position restated by Böhm-Bawerk, it was emphatically maintained that freedom of competition is constantly being interfered with on all sides, by patents, tariffs, and other monopoly and quasi-monopoly conditions, and that scarcity values are the rule rather than the exception.¹¹ Monopoly and scarcity regularly result, it was held, in a surplus being secured by even the marginal producer, over and above his cost of production.¹² When Green wrote, he was taking it for granted that such scarcity factors, rather than free and unrestrained competition, were dominant in production. The older classical assumption of a virtually all-pervasive normal price in the actual market was by this time rather widely denied.

Thus far Macvane's analysis of cost elements and the Austrian objections to it may not seem to be particularly contradictory. The older classical contention that real cost measures price addresses itself to normal price, which leaves scarcity considerations out of account, and not to actual market price, in which they are included. Nevertheless, if "normal" situations are virtually nonexistent in actual production, as the Austrians maintained, the classical position on this score becomes more imaginary than real. Furthermore, other Austrain criticisms went much deeper than those thus far indicated, some of them striking at the very basis of the "normality" contention itself. These additional objections grew out of a further critical analysis of the classical reduction of capital to past labor.

Wieser's argument with respect to capital and past labor, to which Macvane took exception, has one or two very significant implications, not yet developed here. One implication is that in pyramiding the labor "involved in accumulating capital from the beginning of

¹⁰ Price determination thus came to be thought of as occurring at the "margin," the postulation of which appeared to vitiate the earlier objections to cost theory based upon the products of better land, more efficient capital, or greater skill in workmanship.

¹¹ Eugen von Böhm-Bawerk, "The Ultimate Standard of Value," *Annals of the American Academy of Political and Social Science*, Sept., 1894, p. 56; cf., also, his *Capital and Interest, a Critical History of Economic Theory*, tr. William Smart (London, 1890).

¹² Cf. Macfarlane, *Value and Distribution*, p. 29.

economic history" much more than any necessary or reasonable expenditure is taken into account. In addition to such equitable expenditure, which might be designated as prudential labor cost, there is also included accidental, careless, wasteful, and other wholly unnecessary labor which should not have entered into the cost of the product at all, especially in the light of what might be regarded as "reasonable according to our present mode of production."¹³ Another important implication of Wieser's argument, which he himself does not seem to have followed up very conclusively, has to do with a comparison of present cost with past cost in terms of progressive industrial advance. The reason for this inconclusiveness in the argument is at least in part due to Wieser's confusion of subjective and money conceptions of cost, which Macvane was quick to perceive and to make the most of, failing to realize, in turn, that in his replies he exposed himself to even more serious criticism, for, in rebuttal, he wrote:

How, for example, does he [Wieser] propose to express the fact that all commodities are lower in cost today than they were a century ago? . . . What he has chosen to dignify with the name of cost of production is in reality, on the most favorable interpretation, only a sort of disguised form of employer's cost. At best it can give but a clue to the present comparative costs of the various commodities to the employers who carry on the final stage in each productive process. What these pay out for labor, materials and machinery, has reference to costs endured by those to whom the payments are made; but to confound these payments with the true elements of cost which they reward is, in my judgment, only to introduce confusion into the very heart of our science.¹⁴

The Austrian confusion of money cost with subjective cost will presently be taken up further. The main point here is that Macvane himself presented no adequate apparatus for expressing "the fact that all commodities are lower in cost today than they were a century ago." If such a comparison between present and past costs is not to be made by way of employer's expenses, which Macvane distinctly disavowed, what are the "endured costs" he had in mind? Surely, as he himself expressed it elsewhere, they must have been

¹³ Wieser, "Theory of Value," p. 30.

¹⁴ "The Austrian Theory of Value," pp. 26-27.

"the sum total of the various bits of labor and waiting contributed by all the persons" who had ever taken part from the beginning of economic history.¹⁵ But how could such a "sum total" be less now than a century ago, or less in Macvane's day than a hundred years before that? The classical "sum total" of cost is constantly being added to by each new generation, no provision being made under the theory for subtractions, as Wieser very pertinently indicated; there is stipulation only for a cumulative increase. The longer the time-lapse since "Adam," the greater the "sum total" of subjective cost.

It may be objected here that the "sum total" envisaged by Macvane probably refers only to sacrifices undergone in any given generation, and that, if an increase in the relative productivity of labor and waiting from generation to generation be allowed for (an increase proportionately greater than the concomitant addition to inherited subjective cost), a decreasing subjective cost per unit of productive output would result. The virtue of this contention may be admitted. But such an assumed increase in the productivity of "labor and waiting" cannot be explained by any *quantitative* labor-and-waiting theory, for decreasing per unit cost implies that the *quality* of labor and waiting is improving. Even under assumed normal situations, two classical "quantities" of labor and waiting would not tend to an equality of exchange if their productivity or qualitative effectiveness differed.

SECTION 36. PATTEN'S APPRAISAL OF COST THEORY: SUMMARY OF AUSTRIAN CRITICISM

Besides the shortcomings of cost theory revealed in the Austrians' criticism of Macvane's attempt to reduce capital to past labor, there are others revealed in their criticism of the correlative concept of savings. These additional shortcomings are clearly evidenced when consumption factors as a whole (which the Austrians seemed to stress almost exclusively) are laid over against the corresponding production factors (the chief concern of the cost advocates). In bringing these two major considerations together, probably no one has rendered greater service than Simon N. Patten. In the earlier portions of his *Dynamic Economics*, he in fact suggested that the

¹⁵ *Ibid.*, p. 19.

influence of this relationship (of consumption to production) upon the thought of the older classical economists set the main tenor of their belief and that of their followers.

The physiocrats, he pointed out, hypothesized that man consumes all he produces. As a result, they contended that "prices cannot be higher than they are because consumers have no more to give. Neither can they be lower because producers cannot live on less than they have."¹⁶ Accept the physiocratic premises, and these conclusions inevitably follow. If, apart from agriculture, those who produce never create more than they consume, then the money cost of producing goods must equal the price of consuming them. Under such conditions, the "value" of the services of a horse may be measured in terms of the cost of the oats he eats, and the "value" of a man's work in terms of what he lays out to keep himself in working condition. "As a consequence of this reasoning the early economists measured the cost of labor in wheat, the staple food of the laboring class. The laborers must have enough wheat to replace the waste involved in production, and they could not get more than the amount needed to replace this waste, because of a lack of productive power, or because of rapid increase of their numbers." The price of the produced commodities was thus regarded as being equal to the cost of the wheat the laborers consumed.¹⁷

Adam Smith, Patten continued, destroyed the physiocratic "cost basis by demonstrating that there is "a surplus in manufactures and commerce, as well as in agriculture." Since in practice there is this surplus, the value or price of the finished product must be greater than its cost of production.¹⁸

The return obtained from the factory and from commerce is greater than the expenditure of labor in the same sense that the return from land is greater than the labor of farmers. What nature does in agriculture, intelligence and co-operation do in the manufacture and exchange of commodities. There is now a margin of possible fluctuation of prices between the highest price for goods that consumers can afford to pay, and the lowest price that producers can afford to take.¹⁹

¹⁶ Patten, *Dynamic Economics*, p. 13.

¹⁷ *Ibid.*, p. 25.

¹⁸ *Ibid.*, pp. 25-26.

¹⁹ *Ibid.*, pp. 14-15.

Regarding certain assumptions underlying Ricardo's theories, Patten added:

The economy of Ricardo and his theory of cost assumes a primitive society before superior intelligence became necessary to efficient production. He never refers to production on a large scale. All his illustrations of exchanges are from primitive conditions. A shoemaker exchanges with a tailor, and a hatter with a baker. . . . When, however, hatters, shoemakers, tailors and other producers are formed into large productive groups to increase the efficiency of production, the higher intelligence needed to organize production is a scarcer factor than the better grades of land, and is the source of more monopolies. Some element of monopoly is now everywhere, and causes the value [price] of all commodities to be greater than their cost, except, perhaps, those made at the margin of production.²⁰

Commenting on the beliefs underlying classical cost economics as a whole, Patten concluded with the following significant observation:

The several economies which have been described are but phases of one economy. They all presuppose the same characteristics of man and nature, and emphasize the dependence of the former on the latter. The ideas upon which they are based are not inductions from the particular environment of each economist, but are the inherited ideas of the race. The primitive conditions under which men lived have made so deep an impression on their minds that the old ideas cannot be eradicated, except by a process of evolution. Particular writers rejected this or that primitive idea and put in its place one founded on modern experience; yet the method of thinking in which they were reared was so strong, that they soon gave up the struggle, and made their discoveries mere exceptions to the accepted system of thought.²¹

Patten prepared his excellent argument as a preliminary to pleading the Austrian cause. But quite apart from this seeming partisan outlook, his analysis would appear to present the essential significance for price determination of consumption as against production factors. Where consumption equals production, a physical cost-of-production measure is completely logical. Where production outstrips consumption, with some resultant savings, what price the consumer can afford to pay takes on importance as against what price the producer is willing to take. Smith thought that "the action of

²⁰ *Ibid.*, pp. 18-19.

²¹ *Ibid.*, p. 36.

self-interest causes producers to take the lowest possible price" and that consumers therefore secure any surplus there may be.²² Ricardo maintained that producers' self-interest does not result in the lowest possible price but in increased profits.²³ A more thoroughgoing appreciation of the pervasive influence of monopoly and quasi-monopoly control by producers tended to substantiate Ricardo's contention on this score. In modern industry, with production cumulatively outstripping consumption and with savings mounting ever higher from generation to generation (because of man's increasing ability to satisfy the minimum of his wants with ever-decreasing per capita effort), what the consumer (through his productive effort plus his savings) can afford to pay becomes at least equal to, if not greater than, current "costs" of production as a factor in price determination.

The Austrian criticism of capital and savings as past labor, therefore, offered three fundamental objections to the classical cost position:

First, that the classical original-cost notion made no provision for eliminating wasteful, needless, and less efficient labor as compared with current standards of production (so that original or "embodied-labor" cost must as a matter of fact be increasingly at variance with reproductive or "commanded-labor" cost);

Second, that long-run qualitative differences in the effectiveness of labor and capital must be assumed to account for greater per capita productivity and decreasing per-unit costs from generation to generation (thus rendering it more and more impossible to equate the "labor and waiting" of one period with the "labor and waiting" of another period); and,

Third, that mounting savings or surpluses demonstrate that production is cumulatively outstripping consumption (thus raising "ability to pay" to at least an equal place with "cost of production" as a factor in price determination).²⁴

²² *Ibid.*, p. 15.

²³ *Ibid.*, pp. 26-27. Among Patten's numerous writings, see also: *The Premises of Political Economy* (Philadelphia, 1885), *The Development of English Thought* (New York, 1899), *The Theory of Prosperity* (New York, 1902), *Essays in Economic Theory* (New York, 1923).

²⁴ Cf. chap. xxix, below.

SECTION 37. CLASSICAL CONFUSION OF MONEY
EXPENSE WITH REAL COST

The Austrian criticism of Macvane's exposition of classical cost theory was for the most part exceedingly effective. In several respects, however, Macvane scored heavily against the Austrians, as demonstrated in his analysis of the "alternative" sophistry and as indicated in the last Macvane quotation in Section 35, where the confusion between subjective and money cost is stressed.²⁵ Pursuing this analysis further, Macvane pointed out that the Austrians were advocating a method for "arriving" at an equivalence between subjective cost and money expenditure by starting their account, not at the beginning of the processing of the materials making up the finished product being evaluated, but at a point somewhere in between, thus slurring over the fact that they were assuming cost as equal to money outlays in the premises.

Macvane's whole argument on this subject constitutes a notable exposé of an important error in the Austrian procedure. Taking the manufacture of iron palings as an example, he pointed out that their cost of production was presumed by the Austrians to start with the buying of pig iron, counting the *purchase price* of pig as part of the cost. The labor of mining and smelting was included only in terms of the *money wages* paid therefor. If it is objected here that we cannot get back to the real beginning of any process anyhow, which is of course true, the question nevertheless is: Why in analyzing the cost of iron palings start with the market price of pig iron and expect to arrive at anything else but a sum of market prices at the end? Why not state in simple terms the assumption on which the Austrian analysis is here based, namely, that the "cost" of a finished product is the money expense entailed in its production? The cost, in short, is assumed to be money cost and not labor effort or pain or anything else subjective. What was assumed in the middle of the productive process, that cost equals money outlay, is very naturally found at the end. Had labor pain been assumed in the middle of the process, then it would have appeared in the sequel. "Money outlay" is one way of defining "cost"; but it is one thing to make an open assump-

²⁵ Cf. p. 137, above, and chap. vii.

tion of this character and quite another to imagine that proof has been given, in the course of a process of confused reasoning, that "cost" *must* equal money expenditure and cannot be visualized in any other way.²⁶

Macvane summed up the matter and re-emphasized the distinction between money cost and subjective cost as follows:

The employer . . . must of course pay for the labor and waiting that already have been devoted toward obtaining the product. . . . [But] the true cost of production of the commodity he is himself engaged upon, is the sum total of the various bits of labor and waiting contributed by all the persons who take part, directly or indirectly, in the production of it. The arrangements and payments these persons make among themselves in consideration of the part each bears in the whole burden, do not affect the nature of the burden itself. That remains, through all their arrangements, the two-fold task of necessary labor, followed by necessary waiting.²⁷

The Austrians undoubtedly went astray in their attempted reduction of subjective cost to money expense. Yet the cost advocates appear to have confused these two concepts in a way even more subtle and thus more pernicious when viewed in the light of the fallacies already analyzed. The cost theorists thought of subjective cost as normally measuring price wholly in terms of their assumed equivalence between commanded money, commanded labor, and embodied labor and of their unwarranted hypothesis that embodied labor measures both wages and price under "early and rude conditions." Take away these fallacious assumptions, and every vestige of the classical measure of price through subjective cost would seem to disappear, even under the carefully guarded though increasingly impotent presumption of so-called normality.²⁸

²⁶ Macvane, "The Austrian Theory of Value," pp. 25-26, and "Marginal Utility and Value," p. 258. Patten (*Dynamic Economics*, pp. 27-28) accused Smith and Ricardo of falling into the same error; although his accusation would seem to be too sweeping, it is undoubtedly applicable to those lapses in the Smith-Ricardo reasoning where labor cost is confused with money cost. John Stuart Mill also perpetuated this confusion (*Principles of Political Economy*, Ashley ed.; London, 1920, p. 583).

²⁷ "The Austrian Theory of Value," pp. 19-20.

²⁸ Cf. chap. ix, above.

CHAPTER XII

PRESENT STATUS OF COST THEORY

THERE WOULD be little if any occasion at the present time to consolidate the arguments for and against classical cost theory, as has been done in preceding pages, if economists by and large appreciated the significance of the arguments. Contemporary lack of such appreciation is evidenced in two directions. On the one hand, a small though growing group (still apparently in the minority) has either become impatient of classical cost dogma and refuses to be concerned with it in any form or has endeavored against odds to clarify various aspects of the pseudoscientific reasoning. On the other hand, the majority appears to be satisfied with the form and spirit, if not with all the content, of the old dialectic, and continues to perpetuate it (usually with the addition of still more tenuously drawn refinements), by passing it on to students and to the general public.

SECTION 38. CONTINUANCE OF PSEUDOSCIENTIFIC REASONING

In the thought of those who, with further subtleties, continue today to propagate the old confusions, there is presented an informative example of constructive suggestions regarding cost elements united with traditional reasoning of a questionable character, a combination which makes it so difficult to keep pseudoscientific ghosts laid.¹ With considerable eclectic power, the most essential elements in the older classical analysis are picked out; some of the more important difficulties are given emphasis; at a convenient moment the alternative-use maneuver² is blandly executed, with resultant muddling of subjective and pecuniary aspects; and, as a

¹ Cf. Bye, "The Nature and Fundamental Elements of Costs," pp. 30-62; Harry G. Brown, *Economic Science and the Common Welfare* (Columbia, Mo., 1923), Part II, chap. ii, sec. 3; Thomas N. Carver, *Principles of National Economy* (Boston, 1921), chap. xxvi; Gustav Cassel, *Theory of Social Economy*, tr. Joseph McCabe (New York, 1923), chap. iii, sec. 12; Hubert D. Henderson, *Supply and Demand* (New York, 1922), chap. x; Arthur C. Pigou, *Economics of Welfare* (4th ed.; London, 1932).

² Cf. chap. vii, sec. 24, above.

modern refinement, the meaning of "real cost" is stretched until it loses its strict classical significance and becomes synonymous with any factor conditioning or limiting supply.

A recent example of such reasoning starts with the excellent statement, quoted at the beginning of Chapter IX, differentiating enterprisers' expenses from the real costs which have "long been a major problem of economic theory." The steps are then briefly traced by which the classical writers arrived at labor pain and waiting (or abstinence) as these real costs, and the circumstances are indicated by means of which, through the later recognition of scarcity and demand influences, the classical cost theory was "destroyed," by disproving the supposed connection between subjective cost as then conceived, and pecuniary outlays.³ Following this, it is suggested that in order to avoid future confusion, "costs" should henceforth be used synonymously with "expenses," and for part of the rest of the analysis the term is so used, although unfortunately in other parts its employment in a nonpecuniary sense is also continued.

It is precisely in such connections that the "alternative" formula is today applied in cost theory and that physical factors are added to the "real costs" of the classicists, the expanded "real costs" being still held to "differ from the pecuniary aspect"; at least they are held so to differ before the "alternative" maneuver is executed, after which the nonpecuniary and pecuniary phases seem very much related, as they always appear to be when under the spell of the "alternative" legerdemain. In this more recent application of the "alternative" dogma, the statement is often quite blandly made, without any apparent appreciation of the difficulties already analyzed in Chapter VII, that "real costs" are determined by the prices offered in "possible alternative uses." In short, though the expanded supply-limiting "real costs"—labor pain, waiting, natural resources, monopoly—are still thought to "differ from the pecuniary aspect," they are nevertheless regarded as being "determined" by it. At this point an excellent analysis is usually made of opposing demands as influencing money costs in the process of competitive bidding, and the statement is sometimes advanced as a conclusion (when it should have been regarded as an initial premise) that "prices are the result

³ Bye, "The Nature and Fundamental Elements of Costs," p. 33.

of both demand and supply influences.”⁴ An important omission in such reasoning, be it noted, is that we are not reminded that demand, as well as supply, has nonpecuniary in addition to pecuniary aspects; nor is anything adduced, except by way of the “alternative” sophistry, to suggest *how* nonpecuniary elements (whether of demand or supply) are determined, are measured by, or are otherwise related to the pecuniary aspect.

With respect to recent attempts in cost theory at widening the meaning of “real cost” to include, besides the subjective factors of the classicists (the “psychic elements”), certain scarcity and monopoly factors which the classicists had discounted (the “physical elements”), the reasoning follows in part a suggestion made nearly half a century ago by Herbert J. Davenport, who used the expression “resistances to production,” the suggestion being amplified in present-day cost arguments until “real costs” come to be regarded as “the scarcity factors or resistance-elements of costs.”⁵ It will be worth while to note the apparent genesis of this widening process. The classical cost advocates had regarded “real costs” as made up of “labor and waiting,” but in doing so they had, among other things, brushed aside scarcity and monopoly considerations. All of these factors in present-day cost arguments are now added together, the result being that labor and waiting *plus* scarcity and monopoly are incorporated in the new definition of “real costs” or “resistances to production.”

To the present writer, a mere recital of the origin of this expanded cost concept is sufficient to bring into serious question its merit with respect to price determination. If a homogeneous measure for the “psychic elements” of costs has been impossible to formulate, the matter evidently becomes even more difficult when “physical elements” are added. The older classical economists thought of subjective or real cost in terms of human sacrifice. How then is it permissible to say that scarce land or veins of ore or monopoly conditions are “real costs”? Can ore or land be thought of in any sense as human sacrifice? Does not such an extension destroy the very

⁴ *Ibid.*, pp. 35-41.

⁵ Cf. “The Formula of Sacrifice,” *Journal of Political Economy*, Sept., 1894, pp. 561-573.

meaning of subjective cost? By including certain factors which the classical economists had avoided, neoclassical academicians have forsooth arrived at a new "total"; but it does not follow that this "total" is entirely made up of "real costs." The real costs of the older classicists (labor and waiting) do, of course, condition supply, and so do scarcity and monopoly. All these may conceivably be regarded as "scarcity factors of supply," but hardly, it would seem, as elements in an adumbrated notion of "real costs."

Continuing the adumbration, some contemporary cost theorists state that the psychic and physical factors just mentioned are the "cost elements" which it is the purpose of value analysis to discover, and that these "cost elements" "give rise to" or "resolve themselves into" payments of a pecuniary nature.⁶ Phrased thus generally, the statement may in one sense be accepted as self-evident, but the implications attached to it by way of the "alternative" dogma immediately raise further doubt, especially when it is added: "On this basis [the 'alternative' basis], the prices of all commodities always equal their cost of production, and costs and prices become, in fact, synonymous terms. . . . From the standpoint of the general welfare it is desirable that prices should conform as closely as possible to their competitive costs of production."⁷ When nonpecuniary "costs" of a psychic and physical character thus "give rise to" or "resolve themselves into" pecuniary payments, is it meant to imply that, through the "alternative" maneuver, the nonpecuniary aspects of "costs" are, under conditions of free competition, precisely determined or measured by the prices paid? This is one of the fallacies we have endeavored to expose in other connections. "From the standpoint of the general welfare," it would appear to be particularly desirable to make clear and keep clear that "real costs" are *not* measured by pecuniary outlays even under competitive conditions, and that pseudoscientific dialectic which tends to keep up this pretense in economic theory should be finally abandoned.⁸

That a questionable conclusion does ordinarily seem to be implied in such argumentation will be evident from a brief recapitulation of certain phases of the argument contained in one of the neoclassical

⁶ Cf. Bye, "The Nature and Fundamental Elements of Costs," p. 47.

⁷ *Ibid.*, pp. 60-61.

⁸ Cf. chap. vii, above.

writings here referred to. In the early part of the presentation in question it is pointed out: that "the purpose of value theory [is] to explain what fixes the prices of commodities"; that "it does not carry us very far in such an explanation to say that prices depend upon costs, if these costs are found, upon analysis, to consist only of prices themselves"; that the older classical economists thought of monetary outlays as corresponding with and measured by amounts of labor pain and waiting, but that this "supposed connection between pecuniary outlays" and the classical "real costs" was subsequently completely "disproved." It is then contended in the aforementioned argument that a better conception of "real costs" is the classical labor and waiting plus scarcity and monopoly factors, all of which, it is asserted, can probably be measured by unvarying quantitative standards. In a given instance, it may thus be assumed, the expanded "real cost" would total six labor hours, three tons of coal, two acres of land, three units of fatigue, and eleven units of waiting. Nothing is said in this form of reasoning to indicate that either the lack of homogeneity among these units or their differing qualities might be regarded as insuperable difficulties in attempts at measurement, and we are led to infer that these physical and psychic factors are about to be related to pecuniary outlays in a much more precise manner than the classical economists had been able to achieve. In this modern attempt to relate prices to "real costs," it would seem, however, that no greater headway has been made than was presumably made by the classical economists in their earlier efforts to relate price to labor and waiting, which according to neoclassicism itself was no headway at all.⁹

To resume: pecuniary and nonpecuniary elements in cost having once more been confounded, the confusion is more or less continued throughout the remainder of the presentation in question. Nevertheless, the main purpose, as avowed, is to indicate in detail what are the nonpecuniary hindrances to production, "the most obvious causes of the scarcity of commodities"; and, where this purpose is consistently held to, the situation is summed up in a noteworthy and suggestive manner. The nonpecuniary supply-limiting factors are

⁹ Cf. Bye, "The Nature and Fundamental Elements of Costs," pp. 30-34.

presented under a number of headings: labor effort, differences in human ability, waiting required by the roundabout process of production, risk-bearing in industry, land-space limited for productive use, limited natural resources, other natural or artificial factors that are scarce, and monopolistic limitations.¹⁰

Such a catalogue of supply-limiting factors merits careful consideration. Psychological, biological, geological, and physical "elements" are here brought together in an excellent pattern, and the reasoning might be carried further with helpful results. At the same time, a similar analysis should be undertaken of nonpecuniary demand factors, as well as of institutional and other influences bearing upon the price-fixing process. Only through some such thorough-going sifting of all the known variables does it appear that the heart of the problem of price determination can ever be reached.

So far as the point of view of present-day cost apologetics is concerned, the excellent analysis of the elements that condition and limit supply rightly serves to give wide currency to this phase of it: but the hoary sophistries also incorporated therein unhappily lend further color to the alternative-use dogma and to the fiction that in some way "real cost" does after all measure price.

SECTION 39. A MORE CONSTRUCTIVE POINT OF VIEW

While there is thus a continuance of dialectical and pseudoscientific reasoning in contemporary cost theory, a much more realistic view of the whole matter is fortunately here and there also in evidence. Analyses are being made of the various forms that subjective costs take, such as "physical fatigue, monotony, social odium, disesteem"; increasing attention is being given to the influence of such real costs upon employment distribution in different occupations; and investigations are being conducted to compare the wages received in various occupations with the kinds of effort involved. At the same time, among those who exemplify this realistic approach, there is an almost complete absence of attempts to reduce different types of sacrifice

¹⁰ *Ibid.*, pp. 41-47. Cf., also, Bye's chapter on "Some Recent Developments of Economic Theory," in *The Trend of Economics*, ed. Tugwell, pp. 271-300.

to measurable or comparable terms. One prominent economist, Edward S. Mason, expresses this point of view in the following words:

In general, the movement of economic theory during the last century has exhibited an increasing tendency to treat real costs as qualitatively important but quantitatively unmeasurable data.... The difficulty of measuring real cost is in no way more clearly shown than in the dissatisfaction with which any proposed unit of measurement has been met. Let us take the common unit, hours of labor. Perfectly justifiable for certain uses, probably no living economist would maintain that for the general value problem all labor costs, let alone real costs of other kinds, such as time preference or risk, could be reduced to hours of labor of a standard grade. Data of this sort, made up as they are of states of consciousness, to use Professor Pigou's description, are too susceptible to individual differences even among laborers in the same grade and occupation. Further, the real cost involved in labor of different kinds or grades is subject to qualitative differences incapable of being merged in any applicable unit of measurement.... Cost of production theories break down in their attempted reduction of dissimilar factors to a given unit.¹¹

Without some common psychic unit, to which various kinds of real cost may be reduced, any attempt to measure price in subjective terms is doomed to failure. "The history of English value theory from Ricardo to Marshall" demonstrates the fact that no such common unit can be found. Ricardo tried consistently but without success. Mill confused subjective considerations "incongruously with a money-expenses explanation." Cairnes endeavored to achieve consistency again, but the introduction of his idea of noncompeting groups "is hardly more than an admission of the fact that a certain set of imponderable and unmeasurable social influences" must always militate against real cost being in any constant way related to price. And Marshall, while he saw the virtue of having a common unit if one could be found, "substantially insists that no unit of general applicability exists."¹²

We may now summarize the present situation with respect to cost theory. On the one hand, the following limitations are being increasingly taken for granted: that real costs do not measure price; that such costs are not homogeneous and commensurable; that, even

¹¹ "The Doctrine of Comparative Cost," pp. 65-67, 71.

¹² *Ibid.*, p. 92.

if they were homogeneous and commensurable and could indicate what a given present-day commodity might amount to in terms of exertion, waiting, and other sacrifice from the beginning of economic history, such knowledge would be of little consequence to present or future generations in determining current market prices, since scarcity conditions and monopoly factors have entered into the historical picture just as much as, if not more than, subjective costs in determining the conditions of supply; and that, if the Austrians have done nothing else, they have demonstrated that *demand* factors should be given equal consideration with *supply* factors in any rigorous analysis of price determination.¹³ On the other hand, with and without an appreciation of the limitations of subjective cost concepts, further effort is being made to ascertain more precisely the influence of "real cost" upon supply. In this effort, however, confusion between subjective or nonpecuniary costs and money expenses still continues, largely by way of the "alternative" sophistry.¹⁴

SECTION 40. EPITOME OF COST ARGUMENT AND OF OBJECTIONS TO IT

Briefly the classical cost argument was as follows: In Smith's assumed "early and rude" condition of society, quantity of embodied labor was thought normally to exchange for quantity of embodied labor; hence money wages were held to measure "normal" price. Under the hypothetical conditions thus assumed, embodied labor was seen to be equal to commanded labor and commanded money, hence within a real society, where labor and waiting displaced em-

¹³ Regarding the shortcomings of classical and neoclassical cost theories from the point of view of modern accounting practice, see John B. Canning, "Cost of Production and Market Price," *Accounting Review*, Sept., 1931, pp. 161-164.

¹⁴ For further data on the present status of cost theory see: Cannan, *A Review of Economic Theory*, chaps. iv and vii; John M. Clark, *Studies in the Economics of Overhead Costs* (Chicago, 1923); Herbert J. Davenport, "Cost and Its Significance," *American Economic Review*, Dec., 1911, pp. 724-752; Francis Y. Edgeworth, "The Laws of Increasing and Diminishing Returns," in his *Papers Relating to Political Economy* (3 vols.; London, 1925), I, 61-99; Dennis H. Robertson, G. F. Shove, and P. Sraffa, "Increasing Returns and the Representative Firm, A Symposium," *Economic Journal*, March, 1930, pp. 79-116; Henry Schultz, *Statistical Laws of Demand and Supply* (Chicago, 1928), chap. iv, and "Marginal Productivity and the General Pricing Process," *Journal of Political Economy*, Oct., 1929, pp. 505-551; Jacob Viner, "Cost," *Encyclopedia of the Social Sciences*, IV, 466-475. Cf., also, references at end of Part III, chap. xxi, below.

bodied labor, it came to be maintained that the commanded-labor or commanded-money measure might be used instead and with similar exactitude. Scarcity situations continued to be thought of as "rather conceivable than actually existing"; hence for the most part "normal" price was regarded as equal to market price and actual payments as tending to equal the subjective cost of the labor and waiting entailed. The respective summations of subjective costs and of their money concomitants were held to result in two "sum totals" (viewed on the one hand as bits of labor-and-waiting and on the other hand as money payments), which totals under completely "normal" conditions were thought of as equivalent. Thus subjective cost was regarded in the main as equal or proportional to price and as measuring it—a beautifully compact and coherent theory if one overlooks the fallacies and inadequate assumptions inherent in it.

The fallacies and other deficiencies may be summarized thus:

(1) A primitive stage of society in which embodied labor measured exchange value or price appears never to have existed. In the jungle life of man and in early civilization, predatory power, monopoly and tribute, the will of the stronger and the more cunning, apparently set the conditions, at least in large part, under which commodities passed from hand to hand. Traditions of "forced" as well as free exchange between class and class and people and people would seem to have been the starting points of the "values" or "prices" inherited by more civilized descendants, who in slow stages eliminated the worst of the earlier political and social inequities.¹⁵

(2) So much has been said in preceding pages about the "alternative" sophistry, that it is hardly necessary to recite again, even in summary form, the type of reasoning by which the embodied-labor measure was made "equivalent" to a commanded-labor or a commanded-money measure, the latter because of its subtlety providing a most pernicious confusion between subjective cost and money expense. At first the "homogeneity" of the assumed embodied-labor measure was not questioned. Later when "waiting" was added and crude confusions with money expense were forsown, the impossibility of any common denominator in terms of human sacrifice, between the *effort* of the labor and the *tediousness* of the waiting,

¹⁵ Cf. chap. xxvii, below.

became more and more obvious, as did also, from a practical point of view, the impossibility of comparing present labor (by way of commanded or reproductive cost) with past or original labor, including, as the latter did, needless or inefficient effort as measured by present standards.

(3) Scarcity and monopoly exceptions to the classical assumption of a fairly all-pervasive "normality" in production had come from Ricardo's day onward to receive increasing recognition and emphasis, until toward the end of the nineteenth century they were being regarded as the rule rather than otherwise.

(4) Added to quantitative nonhomogeneity there came to be recognized, in long-run "labor-and-waiting" efficiency, qualitative differences which must be admitted if a situation of decreasing per unit cost is to be rendered explicable. The classical cost argument would seem to be statically quantitative from beginning to end. Quite apart from inherent fallacies and hasty generalizations, the ideal of an equilibrated normality leaves no place for progressive changes in productivity. Short-run and ephemeral "dynamic" changes that sooner or later cancel out one another may not affect the normality argument, but progressive and long-run "dynamic" changes would seem to contradict it entirely.¹⁶

(5) Finally, a comparison of consumption with production factors, which brings to light an ever-mounting surplus or savings under modern production, indicates the increasing importance of ability to pay as against cost of production in the determination of price. Since from earliest times predatory power and cunning rather than quantity of labor appear for the most part to have determined exchange relations, inheritance and savings for the favored few make it unnecessary for some people to start from "scratch." Monopoly and scarcity advantages accruing to the propertied and capitalist classes and competitive disadvantages faced by the masses, increase the tendency to set price at the upper level of the consumers' ability to pay. Inherited and customary conceptions of prices tend still further to keep them up, despite decreasing costs of production which would otherwise (and "normally") tend to bring them down.

The inherent fallacies of "early and rude" society assumptions, the

¹⁶ Cf. chap. xxxii, sec. 135, below, on equilibrium economics.

"alternative" sophistries, the lack of homogeneity in any subjective cost measure, the wide deviation from assumed normality which scarcity and monopoly conditions predicate, the actual divergence between original embodied-cost and prudential reproductive-cost, the necessity for assuming long-run qualitative differences in "units" of labor-and-waiting to explain decreasing costs from generation to generation, the rise of the ability-to-pay measure as of at least equal importance with subjective cost—all these considerations taken together served finally to spell the doom of the classical cost structure. Except by way of the "alternative" sophistry, neoclassicism says little today about subjective cost as a *measure* of price. Its only important contribution would seem to be to focus attention upon the *elements* of subjective cost and upon their general influence with respect to supply.

CHAPTER XIII

CONTEMPORARY UTILITY THEORY

As ILLUSTRATED in Chapter XI on the criticisms of cost theory advanced by the Austrians, there is little question that the Austrian or utility school has contributed in important respects to the development of value theory, for at the very least it served to emphasize the significance of considerations which the cost economists had discounted. The latter had accepted the broad utility notion handed down from the ancients, as the capacity of a good to satisfy want or desire, and they had admitted that such a general quality must be present before the phenomenon of price could emerge; but, in settling upon cost of production as the ultimate determinant of price, they had given to utility a completely subordinate place. The utility economists reversed this situation, arriving by certain paths of reasoning, which we shall examine presently, at the conception that it is utility and not cost which (at the "margin") is equal to and determines price.

SECTION 41. UTILITY STILL A VAGUE AND AMBIGUOUS CONCEPT

In discussing basic social-science categories in Chapter VII, Section 21, it was pointed out that the core of the present-day structure of economic value theory is this idea of utility (or utility-disutility if one prefers), still very broadly and vaguely defined. Though the Austrians had some hard things to say about the cost doctrines, they at no time stopped to analyze the meaning of utility as carefully as their opponents had come to analyze cost, with its "subjective" and "objective" implications. Nor have any more rigorous utility ideas been developed since, except at the hands of such critics as Hobson. In the casebook analyses previously referred to (in Section 21), it was observed that Knight spoke of utility inconsistently at different times as both objective end and subjective means, as quantitatively measurable and yet as essentially qualitative in character, and as in some way identifiable with satisfaction and pleasure. We saw in fact

that he there defined the term so vaguely that "life," or the "will to live," or even "money" might satisfy his definition as well as, if not better than, "pleasure" or "satisfaction."

When the utility concept is thought of "objectively" in money terms, it may readily be viewed as homogeneous and thus as wholly quantitative. When it is thought of "subjectively" in terms of usefulness or of interest and desire, it cannot be viewed quantitatively as we shall have occasion to observe more fully later on (Chapter XV, Section 52). Unwarranted hedonistic and rationalistic implications still adhering to the utility concept will likewise be taken up presently, and we shall finally return again to Hobson's appraisal in terms of public welfare (Chapters XVI, XVII, XXI).

In the present and in the following chapter, however, we shall examine utility theory on its own grounds, accepting the historic concept in all its vagueness and ambiguity and endeavoring within the limitations thus imposed to understand and evaluate the more immediate claims of its advocates. Since the theory came into prominence in comparatively recent times with the vigorous attacks upon cost doctrine by the Austrians, and since it continues to have a widespread contemporary vogue, we may here pass over its beginnings, except as these have already been incidentally touched upon in Chapters X and XI, and take up immediately what it signifies in current thought to its more critical proponents.¹

SECTION 42. THE MAIN CONTENTIONS OF THE UTILITY SCHOOL

In recent critical literature it is admitted that the psychology underlying the utility theory of the Austrians was unsound, that the

¹ For the historical background of the utility school, in addition to works by Gide, Haney, and Ingram cited in n. 1 of chap. x, above, see: Eugen von Böhm-Bawerk, *Capital and Interest, a Critical History of Economic Theory*, tr. Smart, *The Positive Theory of Capital*, tr. Smart, "Die Österreichische Schule," in *Gesammelte Schriften* (Vienna, 1924), pp. 205-229; Nikolai I. Bukharin, *The Economic Theory of the Leisure Class*, tr. from the Russian (New York, 1927); Herbert J. Davenport, *Value and Distribution* (Chicago, 1908), *The Economics of Enterprise*, and "Proposed Modification in Austrian Theory and Terminology," *Quarterly Journal of Economics*, May, 1902, pp. 355-384; Oskar Engländer, "Karl Menger's Grundsätze," *Schmoller's Jahrbuch*, LI (1927), 371-401; Siegmund Feilbogen, "L'École Austrichienne d'Economie Politique," *Journal des Économistes*, 6th ser., number of articles, written in 1911, 1912, and 1913; Fetter, "Value and the Larger Economics," pp. 587-605, 790-803; Jacob H. Hollander

theory is therefore much more limited in scope than was once thought, and that there has been considerable confusion between utility graphs and demand curves because of an erroneous attempt to "express utility schedules in pecuniary terms."² At the same time it is contended that the unsound psychological implications can be discarded without harm to the essential arguments, and that the confusion between utility, demand, and pecuniary valuation was "soon discovered and corrected," albeit we are never really enlightened as to how this was accomplished.³

The utility theory, it is maintained in essence, is "primarily an attempt to explain price-determination in psychological terms." Its chief feature is the "psychological law of diminishing utility and with special emphasis on marginal utility . . . as the ultimate determinant of exchange value." Its main conclusion is that "for each purchaser of a series of commodities the purchase prices measure the relative marginal utilities of these commodities" or the relative marginal desires of the purchasers (whichever one prefers).⁴ It is denied that the aforesaid conclusion implies "expressing utility schedules in pecuniary terms," but how this very natural implication may be

(ed.), *Economic Essays Contributed in Honor of John Bates Clark* (New York, 1927); Jevons, *The Theory of Political Economy*; Karl Menger, *Zur Kritik der Politischen Ökonomie* (Vienna, 1887); Wesley C. Mitchell, "Wieser's Theory of Social Economics," *Political Science Quarterly*, March, 1917, pp. 95-118; Patten, *The Premises of Political Economy* and *Essays in Economic Theory*; Joseph Schumpeter, "Eugen von Böhm-Bawerk" in *Neue Österreichische Biographie, 1815-1918* (Vienna, 1925), II, 63-80; William Smart, *An Introduction to the Theory of Value on the Lines of Menger, Wieser, and Böhm-Bawerk* (4th ed., London, 1914), and *Second Thoughts of an Economist* (London, 1916); Veblen, "Professor Clark's Economics" and "The Limitations of Marginal Utility," in his *The Place of Science in Modern Civilization* (New York, 1919), pp. 180-251; Wilhelm Vleugels, *Das Ende der Grenznutzentheorie* (Stuttgart, 1925); Otto Weinberger, *Die Grenznutzenschule* (Halberstadt, 1926); Friedrich von Wieser, "The Austrian School and the Theory of Value," *Economic Journal*, March, 1891, pp. 108-121; *Natural Value*, tr. Malloch (London, 1893); *Über den Ursprung und Hauptgesetze des Wirtschaftlichen Wertes* (Vienna, 1884); Allyn A. Young, "Jevon's Theory of Political Economy," in his *Economic Problems, New and Old* (Boston 1927), pp. 213-231.

² Cf. writings of the Austrians referred to in chap. xi, above; also, Jacob Viner, "The Utility Concept in Value Theory and Its Critics," *Journal of Political Economy*, Aug., 1925, pp. 369-387. Cf., also, comments on utility theory, secs. 21 and 25, above.

³ Viner, *op. cit.*, pp. 370, 377-386. Viner's references to Marshall, Wicksteed, and Walras in these pages apparently add nothing with respect to the questions at issue.

⁴ *Ibid.*, pp. 369, 370, 382.

avoided is not indicated. The following statement is typical of the kind of reasoning employed:

There is no merit in the argument of those critics who contend that the attempt to demonstrate a causal sequence from utility schedules to price must necessarily fail once it is admitted that price is not a satisfactory measure of utility as between individuals. The price of a particular commodity is determined in part by the market demand for it, and the market demand is a compound of the individual demands. The individual demands are, in turn, resultants of the contact, for each individual, of his desire to acquire that particular commodity, with his desire to retain, or to make other use of, what must be surrendered to obtain it. In this way individual desire schedules are an ultimate determinant of market price....⁵

It will be noted in the next to the last sentence of this quotation that a variant of the might-have-been alternative-use doctrine appears to be relied upon to bridge the gap between individual desire or utility schedules and demand schedules. Price is undoubtedly "determined in part" by market demand and, undoubtedly also, "market demand is a compound of individual demands" or willing-to-pay prices; but how are willing-to-pay prices related to underlying "utilities"? By the contact of an individual's desire to acquire a given commodity "with his desire to retain or to make other use of what he surrenders" for it? How can the "contact" of two desires determine price? No satisfactory answers to these important questions seem anywhere to be presented by utility theorists.⁶

But let us proceed to further details. Behind the main conclusion of contemporary utility theory, as exemplified in the foregoing quotations, lie certain implications that center upon two broad concepts, diminishing utility and the idea of the margin.⁷ Diminishing utility, it is contended, explains the downward slope of the demand curve, and at the resultant margin price is determined. As we shall see, both these assumptions may be severely challenged, even upon the ambiguous plane of vague utility concepts and without in the process raising the issue as to the precise meaning of utility as such. For

⁵ *Ibid.*, p. 383. Cf., also, Frederick S. Deibler, *Principles of Economics* (New York, 1929), pp. 188-189.

⁶ Cf., chap. vii, sec. 24, above; also, Frank Knight, "Marginal Utility Economics," *Encyclopedia of the Social Sciences*, V, 357-363.

⁷ Viner, *op. cit.*, p. 374.

closer inspection, the two major assumptions may be divided into four parts: (a) the hypothesis of generally operating diminishing utility; (b) the alleged importance of the margin; (c) the assumed relation between utility curves and the negatively sloping demand curves; (d) the resultant presumed effect upon price determination. These parts will be discussed in this chapter and the following one, in the order indicated.

SECTION 43. HYPOTHESIS OF GENERALLY OPERATING DIMINISHING UTILITY

Since the beginning of this century, diminishing utility has not appeared as general a phenomenon as had previously been supposed. Many apparent exceptions have been noted, some of them relatively unimportant but others of disconcerting significance, as, for example, in the case of the collector of coins or the matcher of pearls, who does not desire each succeeding coin or pearl the less, but the more.⁸

In connection with the diminishing utility argument, an ingenious attempt is sometimes made to dispose of the collector and the matcher. "In all these instances," it has been stated, "a complete set is the proper unit to take to observe the operation of the law, and the law may be expected to manifest itself as between successive sets."⁹ In short, if we take a *set* of stamps or coins or a *string* of pearls as the unit, the difficulty is overcome. But is it overcome? Is this not rather an admission of the force of the criticism, namely, that there is quite a range of economic phenomena (within these so-called "sets") where no diminishing utility for successive "incre-

⁸ *Ibid.*, pp. 378-380. It is well to point out here that in this chapter and in the following one no attempt is made to differentiate between diminishing "utility" and diminishing "desire" since the utility advocates use these concepts more or less synonymously for the purposes of the present argument, "desire" being used in a very general way to cover "interest," "want," "need," etc. Later, in Part IV, below, espec. in chaps. xxv and xxvi, the word "interest" is employed in preference to "desire" for reasons which will become apparent there. The role of judgment in interest or desire will also be examined at that point. Cf. Perry, *General Theory of Value*, pp. 550-551, and his "Economic Value and Moral Value," *Quarterly Journal of Economics*, May, 1916, pp. 447-449. What Perry says about value applies with equal force to utility. Cf., also, Davenport, *The Economics of Enterprise*, p. 86, who states, "Utility is the mere fact that a thing is desired."

⁹ Cf. Viner, *op. cit.*, p. 378; also, Philip H. Wicksteed, *The Common Sense of Political Economy* (London, 1933), I, 82.

ments" appears but where increasing utility manifests itself? A "set" of stamps or coins may take years to complete, and during the necessary period a different principle is in operation, the principle of increasing utility.

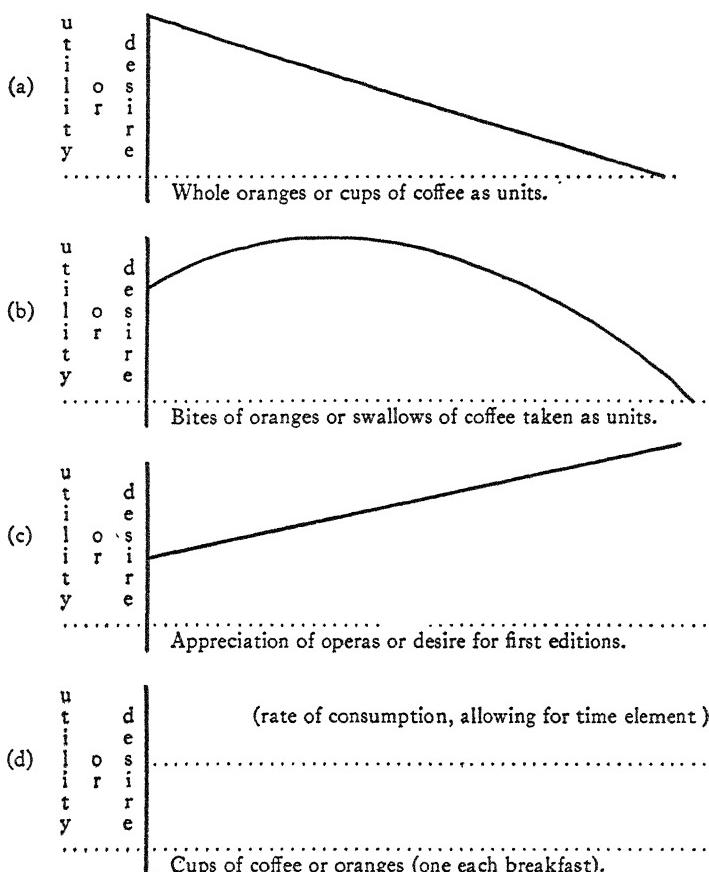
Nor do such examples exhaust the important exceptions. There are many "sets" which are obviously impossible to complete in a lifetime. Is the "set" ever necessarily complete for the collector of first editions, for the person who becomes more and more appreciative of each opera he attends, for the baseball fan whose excitement increases with each successive game as the season moves forward and who awaits the following year with impatience? There is apparently quite a range of human experiences in which increasing rather than diminishing utility operates at least for a time, from the second and subsequent bites of the breakfast orange or the second and succeeding swallows of the cup of coffee to those commodities that cater to the desires of the mind and spirit, where not only is satiety virtually unknown but where diminishing utility or desire is itself a rarity. The so-called law of diminishing utility or desire apparently pertains primarily to physical appetites, and even then the proper "set" must be used as the unit—not one swallow of coffee, but a whole cup; not one bite of orange, but a whole orange. Thus three different "utility" situations emerge from the foregoing considerations: diminishing utility, increasing-diminishing utility, and increasing utility, as illustrated in the first three of the graphs given on page 161.¹⁰

And we have here but the beginning of the difficulty. In addition to the foregoing considerations, if *rate* of consumption is, as it should be, taken into account, there is in the experience of all of us a still

¹⁰ Not to mention the one admitted exception to diminishing utility or desire, namely, money, an exception by no means confined to the psychopathic case of the miser mentioned by Viner, *idem*. The utility or desire curves given on page 161 are of course largely schematic, although the last three are no more so than the first, which is the one usually employed by utility advocates.

The usual diminishing-utility argument proceeds on the assumption of a consumer with unchanging tastes, desires, and capacities for enjoyment. But since, in actual human beings, tastes and desires and capacities for enjoyment are constantly changing—ebbing and flowing, one replacing another from moment to moment, day to day—such argument fails to apply to the ordinary run of normal economic behavior, and it is with the latter that we are concerned here. Cf. Alfred Marshall, *Principles of Economics* (London, 1920), p. 94; and Wicksteed, *op. cit.*, I, 84-85.

UTILITY OR DESIRE CURVES



wider area in which neither diminishing nor increasing but fairly constant utility would seem to operate.¹¹ If we eat oranges at the rate of one each breakfast, drink coffee at the rate of a cup a day, go to the movies or the theater once a week, get a new hat or suit of clothes or pair of shoes at the rate of one every so often—in short, wherever in our experiences we consume goods and services in an habitual way (and that is apparently by far the greater portion of

¹¹ Cf. Harry E. Miller, "Utility Curves, Total Utility, and Consumer's Surplus," *Quarterly Journal of Economics*, Feb., 1927, pp. 292-316.

the time)—there is, other things being equal, constant utility between the successive units thus consumed. And where other things are not equal, on account of recurrent physiological or psychological changes in individuals or changes in the character of the units, the result is probably just as often a temporary increase in the utility experienced as a diminution. A uniform rate of consumption spells more or less constant utility.¹² A change in rate will bring temporarily either a diminished utility (when the rate is increased) or an increased utility (when the rate is diminished), until a new rate is established, when constant utility will again tend to manifest itself.¹³

What, then, becomes of the so-called law of diminishing utility or desire? For one thing, it is certainly far from being the normal situation in actual economic behavior. The utility curve may be either positive or negative in slope, or, probably more often, it is zero in slope, as illustrated in the fourth graph on the preceding page.

SECTION 44. THE MARGINAL CONCEPT

In utility theory the marginal concept is closely bound up with the assumption of diminishing utility. The final or last or marginal increment is presumed always to be the smallest increment, never the largest.¹⁴ But where there is increasing utility in the actual consumption of successive units, the marginal utility is obviously the greatest. And where there is, as indicated above, a steady, habitual rate of consumption of successive "units" (which results in neither increasing nor decreasing utility), there is no "margin" at all. Add to this the fact that, under the leadership of Marshall, the whole utility or demand schedule—every phase of it rather than the marginal phase alone—has come to be held responsible for whatever effectiveness either utility or demand is alleged to have in the determination of price, and it will be evident that the margin is not nearly so important today as it once appeared to be.¹⁵

¹² Cf., also, Lindley M. Keasbey's analysis of "Prestige Value," *Quarterly Journal of Economics*, May, 1903, pp. 456-475, espec. p. 472.

¹³ Cf. Miller, *op. cit.*, pp. 298-302.

¹⁴ Cf. Davenport, *The Economics of Enterprise*, p. 90.

¹⁵ Cf. Alfred Marshall, *Principles of Economics* (4th ed.; London, 1898), I, 418-419, 428, 450, 516-517 n., 592; also, Viner, *op. cit.*, pp. 371, 385; and Davenport, *The Economics of Enterprise*, p. 94; Wicksteed, *op. cit.*, II, 401-438. Cf., also, p. 219, below.

Too often it is assumed, furthermore, in discussing the "addition" of another unit (say a hat) to an already existing "stock," that the net result is always an increase in the total stock. But if a person as a rule adds a new hat only as an old one is discarded (and similarly with other consumption commodities that are replaced as consumed), the normal situation is one in which no new "margin" appears, or, where there is a temporary shift in rate of consumption, one in which the "margin" is just as likely to be higher as lower than before.

Along with the questionable margin deductions which grow out of the constantly growing stock assumption, pertaining to the individual, should be noted certain fallacious conclusions which result from overlooking the fact that, where the social stock of a consumable good is actually on the increase, there may often be, because of more or less proportionate population increase, no larger per capita stock of wealth or greater per capita rate of consumption, which means that there is no decreased "utility," and thus no lower social "margin."¹⁶

A most incisive criticism of the margin concept as such was given by William W. Carlile more than a quarter of a century ago.¹⁷ Quoting from Marshall as to the "margin of immigration" in a new country, the author wrote:

The whole statement amounts merely to this, that settlement has advanced to the point to which it is found to have advanced, or more simply that settlement in the new country has taken place.... If it [the margin] means merely the *de facto* stopping point which neither you nor anyone else can say anything about till after the event, then the mention of a margin does not appear to be legitimate. It means nothing at all.... The margin is merely the point or waving line where the change [any change] is taking place.

Following this view of the margin, divorced from the generally diminishing-utility assumption, into several fields of human activity (economic and otherwise), it is concluded that the concept raises "a cloud of words to vex the souls of the uninitiated," that any deduction drawn therefrom is either "all nonsense from beginning to end, or else that, if translated into plain English and understood with the

¹⁶ Cf. Marshall, *op. cit.*, pp. 93, 94 n. Note, also, distinction between possessive and consumptive interests, n. 25, below.

¹⁷ "The Language of Economics," *Journal of Political Economy*, July, 1909, pp 434-447.

due reservations, it is all in the context already.”¹⁸ In this analysis it is demonstrated rather clearly that the concept of the “margin” is wholly retrospective and that it can never serve as “a basis of prediction and of consequent action,” whether with respect to price determination or otherwise. In the light of such “marginal” criticism, of the disproof of the generally diminishing-utility hypothesis, and of admissions such as Marshall’s that it is the whole utility or demand schedule rather than the “marginal” unit alone which is in any sense effective in price determination, there appears to be little left of the marginal concept, as such, of constructive import for utility theory.¹⁹

But be that as it may, it is rather generally admitted today that, so far as price determination goes, the margin is of no greater significance than other portions of demand and supply. And this is the consideration in which we are primarily interested at present, namely, the putative relation of “marginal utility” to price.

SECTION 45. UTILITY CURVES AND DEMAND CURVES

In the light of observations thus far made, the next consideration of importance that confronts us in further analyzing utility theory is the fact that demand schedules, which are virtually always negative in slope, cannot be derived from utility schedules, which, as we have seen, are more often zero in slope, in the inevitable and uniform way upon which utility theorists insist. Proponents of utility theory tell us that “the market demand curve derives its negative slope from the downward inclinations of the desire curves,” or that “the law of diminishing desire is a working hypothesis serving to explain” the negative slope of demand curves. It is regarded by them as proper to assume this relationship “until it is demonstrated to be contrary to established fact, or until a better hypothesis is available.”²⁰

That the assumed relationship is in large part contrary to fact

¹⁸ *Ibid.*, pp. 438-443. Cf., also, Carlile’s *Economic Method and Economic Fallacies* (London, 1904).

¹⁹ Cf. Davenport, *The Economics of Enterprise*, p. 94, and his frequently repeated statement that it is *at* the margin, not *by* the margin, that price is fixed; also, sec. 64, below.

²⁰ Cf. Viner, *op. cit.*, pp. 378, 381; also, his “Some Problems in Logical Method in Political Economy,” *Journal of Political Economy*, March, 1917, pp. 236-260.

(since utility curves cannot as a rule be regarded as negative in slope) has been indicated. That better hypotheses are available will become evident from a more careful examination of the nature of demand curves.

Demand curves or schedules are of two kinds, often confused—market-demand and individual-demand curves.²¹ Although it is a compounding of the latter which constitutes the former, a separate examination of each type simplifies the analysis considerably. For as prices change, there are in this connection two dependent variables to be taken into account, the isolation of which is made possible by a separate investigation of market and individual-demand curves. These two dependent variables are the number of persons who from time to time enter into market demand as prices for a given commodity change, and the number of units of the commodity demanded per person.

We shall take up market demand first. Since the question of the number of units demanded per person can be more conveniently examined in connection with individual demand, it will be passed over here, or, rather, we shall assume for the immediate argument that the demand per person remains constant at one unit for each as prices change. At the same time, to focus the problem still further, we shall assume for the time being that the "utility" of a given commodity (say oranges) is the same for everyone and that the rate of consumption is fixed (say at one orange per day per person), so that neither diminishing nor increasing utility will manifest itself; that is, the orange utility curve for each person may be depicted as a series of points on a horizontal line fixed at a given level, the horizontal axis representing the number of oranges consumed.

Under such conditions, with the slope of the utility curves zero, would the slope of the market-demand curve for oranges still be downward or negative? It undoubtedly would, in so far as differences in purchasing power remain. Let us take six men with incomes of \$6,000, \$5,000, \$4,000, \$3,000, \$2,000, and \$1,000; a market-demand schedule of approximately 30, 25, 20, 15, 10, and 5 cents might be assumed to represent their respective willing-to-pay prices for an orange even though its utility were the same for each of them. Because of

²¹ Cf. Fairchild, Furniss, and Buck, *Elementary Economics*, I, 255-257.

differences in purchasing power, people would still be willing or able to pay differing prices for a given commodity, albeit each desired it "equally." Even though "utility" were uniform and constant for everyone, and the purchase of each person were restricted to a single unit, still, as the price advanced, some previous purchasers in the lower income classes would be forced out of the market, thus decreasing the demand; as the price fell, some persons unable or unwilling previously would now buy, and would thus constitute an increase in demand. The result would be represented by the familiar negatively sloping market-demand curve.

So far as market-demand curves are concerned, under the foregoing assumptions, here is at least one realistic hypothesis which explains its negative slope, that is, the "law" of differing incomes, the fact of inequality of purchasing power. No supposed universal law of diminishing utility is necessary for an explanation.

Part of the foregoing schematic simplification was, it is true, to the effect that the "utility" of a given commodity be regarded as identical for everyone, each securing the same "pleasure" or "satisfaction" or "fulfillment" out of a unit of consumption. Such an assumption is now generally recognized as contrary to fact. "Men differ in desires and in the degree and manner in which things appeal or appear to offer service."²² There is apparently no simple way of making a comparison between Mr. A.'s orange desire or utility and Mr. B.'s, much less of viewing them as identical. But this complication obviously does not change the conclusion just reached. Differing tastes or desires for the same commodity among individuals simply provide a similar argument to differing incomes as an explanation of the negative slope of the market-demand curve. Neither of these explanations, it should be noted, has anything to do with the diminishing-utility "explanation."

Our remaining assumption, that the number of units purchased by each individual remain uniform as long as he is part of the demand, will have further consideration as we turn from market demand to individual demand.²³ Despite the fact that there is no necessarily precise relationship between *market* demand and individual desire or

²² Davenport, *The Economics of Enterprise*, p. 97; also, chap. xxiv, below.

²³ This assumption is of course abandoned in the analysis of individual demand.

utility and that the negative slope of the former can be explained quite apart from diminishing utility, there may, of course, be a more tangible and direct relationship between utility and *individual* demand.

To begin with, in looking into this possibility, it is necessary to correct the error, still encountered in standard texts on principles, of confounding acquisitive or possessive interests with consumptive interests, the one applying to individual demand and the other applying to utility.²⁴ As already indicated, in the *consumption* of successive increments of a good, the utility or desire diminishes, increases or remains constant, depending upon the size of the increment, the character of the good, and the rate or change of rate of consumption. Quite a different situation obtains when goods are simply *possessed* or acquired as a stock. Mrs. A. buys six oranges. Will her acquisitive or possessive interest in the first orange differ from her possessive interest in the second, third, fourth, fifth, and sixth, as often pictured? Surely not. Each orange from the standpoint of possession or purchase, provided the oranges are all alike, has the *same* economic importance to her, regardless of whether from the standpoint of consumption the successive "utilities" of the six are of a diminishing, increasing, or constant character. Her individual demand schedule for these six oranges is made up of willing-to-pay or able-to-pay prices, and no normal person, under the usual conditions of the market, will pay more for the first orange than for one of the remaining five. The economic importance of a given unit of a stock, from the point of view of possession or acquisition, is the same as that of any other. Taussig pointed this out sometime ago in a much discussed passage:

It may seem paradoxical to say that all the constituents of a stock have the same economic importance, and that none the less some have greater utility than others. But there is no real paradox. It must be remembered that utility means satisfactions or enjoyments. To possess a stock is not to enjoy it (except so far as, by association of ideas, mere ownership gives pleasure; as in case of a miser's hoard). The stock is necessarily enjoyed, not as a whole, but by installments.... Economic importance is something different. . . .

²⁴ Cf. Fairchild, Furniss, and Buck, *Elementary Economics*, I, 300-304; also, Davenport, *The Economics of Enterprise*, pp. 88-91.

Considered in this way, all the constituents are alike; even tho, considered as sources of enjoyment when actually used, they are of varying utility.²⁵

The economic importance, then, or the willing-to-pay price attached to each unit of a contemplated individual purchase, or of a stock on hand, is the same as that of any other unit, regardless of whether the consumptive factors (the utilities) that lie underneath are of a constant, diminishing, or increasing character—which means that, if an individual's purchase were restricted to a set number of units, his individual demand curve would be represented by a horizontal line, as under the conditions previously assumed. In actual life, of course, the individual is not thus restricted. He may from time to time vary the number of units in his purchases of a given commodity. If the price drops, he may buy more units; if there is an advance, he may take less. His actual individual-demand curve would thus not be horizontal but negatively sloping.

In this marshaling of pertinent data, have we found that diminishing utility has anything to do with the matter? Apparently not. The individual-demand curve is made up of willing-to-pay prices, which to the individual represent the economic importance of a given commodity at different price levels, economic importance having to do with acquisition, whereas utility has to do with consumption. Nor is there any necessary correlation between acquisitive and consumptive interests for two reasons: first, because consumptive habits tend for the most part to set a constant rate of consumption quite apart from changing prices and quantities of units purchased; and, second, because, although the consumptive factors (utilities) in a given situation may vary, the economic importance (willing-to-pay price) attached to each unit of a given purchase would remain unchanged. Let us suppose in fact, what may for the most part be regarded as the ordinary situation, that the rate of consumption for a given commodity is fairly constant, so that the utilities of successive units are all more or less alike, would the slope of the individual-

²⁵ *Principles of Economics* (3d ed.; New York, 1923), I, 121-122. Taussig's implication, in the sentence just preceding this quotation, that economic importance comes "to the same thing" as marginal utility is not agreed to by the present writer. Cf., also, Perry, "Economic Value and Moral Value," pp. 451-453.

demand curve representing that commodity still be negative? It undoubtedly would. People would ordinarily still buy more of the commodity when the price dropped and less as the price advanced. If not diminishing utility, then, what is the determining factor in the individual-demand curve's negative slope? Apparently it again has to do, at least in part, with purchasing power, this time with the fact that the latter is as a rule not unlimited.

A man's income is usually a fairly fixed sum. In his budgetary arrangements, he allocates so much of his expenditure for food, so much for shelter, so much for clothing, and so on through the major budgetary items. These allocations are then subdivided until the housewife has in mind how much she can afford and how much she shall probably have to spend for this minor item and how much for that. Ordinary prudence dictates that she stock up on a given commodity when the price is down and buy less when it is up. Whether or not such judiciousness in buying or stocking up is at times reflected in a changed rate of consumption is immaterial here. It is sufficient for our purpose to note that the desire to make the dollar go as far as possible explains variations in the amount of a person's purchases at changing prices, and thus the negative slope of his demand curve, without recourse to diminishing-utility contentions.

To sum up, it would seem from the foregoing considerations that the first of the major assumptions of utility theory (that diminishing utility accounts for the negative slope of demand curves) is in large part contrary to fact and that two other hypotheses (one referring primarily to market demand and the other to individual demand) are sufficient and competent to explain the negative slope; namely, the "law" of unequal incomes and desires, and the "law" of prudential buying in the light of fairly fixed budgetary allotments of expenditure.

CHAPTER XIV

UTILITY AND PRICE DETERMINATION

THE SECOND MAJOR contention of the utility school, that marginal utility determines price, has already been severely challenged in several respects. Whatever force it was supposed to have gathered from the generally diminishing-utility, demand-concomitant-with-utility, and marginal assumptions, would seem for the most part to have been dissipated. But there is still a hard core of argument left, which is not inherently related to any of these presuppositions. Stripped of other considerations, the remaining contention appears as an attempt to measure desire or utility in terms of price offers, and the argument covering it narrows down to a variant of the alternative-use doctrine.

It is now generally conceded, even by utility proponents, that inequalities of income and variations in physiological and psychological make-up render it impossible, in terms of willing-to-pay prices, to measure desires or utilities as between individuals. One cannot reason, says Viner, "from equivalence of price-offers by different persons to equivalence of utility for these persons."¹ Davenport went even further when he wrote: "Men are unlike not only in tastes, in intensity and vividness of feeling and of desire, and in the relative strength of needs and desires, but even more in the pecuniary ability to command the appropriate satisfactions. Any homogeneity of utility, any attempt, for the purpose of the price problem, to force different men into any other common denominator than this very obvious one of price-offer itself, is possible only at the sacrifice of all clear thinking."²

The focusing point of this phase of the argument of utility theorists is thus found in the *individual* economy, where it is usually presumed that differences in income have no bearing and that desires are in some way homogeneous and commensurable. But inequality of

¹ "The Utility Concept in Value Theory and Its Critics," p. 370.

² *The Economics of Enterprise*, p. 97.

income casts its shadow even here. Assume temporarily that the orange desires of Mr. A. and Mr. B. are alike but that Mr. A.'s income is twice that of Mr. B.'s so that he is willing to pay around ten cents for an orange whereas Mr. B., with the "same" desire, is willing to pay only five cents. Assume further for the moment that price-offer does in some way, as claimed, measure desire or utility. Which of the two offers, ten cents or five cents, should in general be used to represent the said orange desire and what is to be the base for measuring this desire when a dozen or a hundred persons with different incomes are taken into account? Obviously price offers cannot measure utility in any *absolute* sense. Davenport himself admits that to attempt any such direct measure, even in the individual economy, is a "pernicious error . . . the result of slipshod thinking."³

SECTION 46. MEASUREMENT IN TERMS OF
PROPORTIONALITY: DAVENPORT

If not, then, in a direct or absolute way, how do utility theorists propose to measure desire or utility in terms of price offers? The answer is: by the method of relativity or proportionality. At this point a variant of the might-have-been alternative-use formula is once more drafted into service. We shall let Davenport, who was one of the most able of the utility proponents, explain the method in his own words:

The disposition of the individual to pay a price for a good is the outcome of his comparison of the [marginal] utility of the good in question with the [marginal] utility of something else to be had for his money. . . . Price-offer expresses the point of indifference between alternative applications of an individual's purchasing power. . . .

The fact is that one decides to pay or not to pay a particular price for a good, not as a question solely of his degree of need for it, but also of the necessity which the purchase of it imposes upon him of going without some other [marginal] utility. . . . Not one, but two [marginal] utilities are necessary for the fixing of a price offer. . . . The thing in prospect is to the thing foregone as 1 is to 1 or 5 is to 5, etc. And this equality of ratio between the thing purchased and the thing foregone is the only characteristic which different [marginal] buyers have in common. They are willing to pay the same market price, and this by virtue of the same equality of ratio. . . .

³ *Ibid.*, p. 92.

To buy one thing means to go without an alternative thing. Therefore the decision to purchase is arrived at only as a choice between competing [marginal] utilities. . . . To be upon the margin is merely to recognize a ratio of equality between competing and alternative [marginal] utilities.⁴

The word "marginal" has been put into brackets by the present writer. In the light of observations already made,⁵ the modifier may be omitted without changing the essential character of the argument, except that in the last sentence of the quotation the marginal concept would seem to be saddled not only with the additional implication of the alternative-use doctrine, but also with the whole of the contention it is sought to substantiate. "To be upon the margin," according to the proportionality presumption, is not simply to contemplate the last or final increment of the individual's desire or utility (which is all that is usually assumed), but it is also to recognize (evidently immediately and intuitively) two new things: first, that there is always present a competing and alternative utility or desire; and, secondly, that between these competing utilities or desires there exists a "ratio of equality"—a proportionality with price offered.

These two implications apparently constitute the substance of the utility school's argument on the score of price determination. Whether one ties them up with the marginal concept is immaterial, except that this proposed enlargement of the marginal idea should be understood for what it is. If the two implications fail, the enlargement likewise fails.

Mr. A. desires a hat, for which he is willing to pay five dollars. The first implication is that along with this hat desire there always appears an alternative desire, competing with it, a desire for something else. It is, of course, true that there is sometimes a conflict between desires, though usually more seeming than real as will be indicated presently.⁶ But is it true that there is *always* a desire for

⁴ *Ibid.*, pp. 84, 93, 104. Viner apparently has the same idea in mind, though he expresses it less clearly, when he says that price-offer is the result of "contact" of two alternative desires in the individual.

⁵ See chap. xiii, sec. 44, above.

⁶ It is of course true that if we buy one thing we cannot with the same money buy something else, just as it is true that if we walk up one street we cannot at the same time travel on another. But that we cannot buy something does not imply necessarily that we desire it, any more than not being able to walk on another street implies necessarily that we desire to do so.

something else that accomplishes our every want? If it is observed that we often feel no such conflict or other wish, the utility theorists will answer that the alternative desire is always there just the same, whether we know it or not, or, if it is not actually present, that we can at least imagine it to be there—that it may be regarded as an “abstraction” to assist us in understanding value theory.⁷

Where an abstraction can assist in theorizing, it of course has a place. But it should be understood quite clearly that, so far as concerns the assumption that competing desires are invariably present in actual experience, there is apparently no warrant for it. Nor have the utility theorists offered anything that might even remotely be construed as proof to substantiate such a contention. It remains from first to last an unverified conjecture. Nevertheless, if as “a schematic and very abstract account” it might be of assistance, we shall tentatively accept it and see where it leads—which brings us to the second implication.

Assuming that, accompanying the actual hat desire, which we shall call x , there is an abstract shadow of another desire competing with it, which we shall call y , what next? Simply this: Let x equal y ; then since the price offer of five dollars is presumed to apply both to the actual desire and to the abstract shadow, x is to y as 5 is to 5, which brings us to Davenport’s “ratio of equality” or the alleged proportionality between desires and price offers. “The point of indifference between alternative applications of an individual’s purchasing power” (that is, of the five dollars) is the point of “contact” between the actual desire and the abstract shadow desire, which are to each other “as 1 is to 1 or 5 is to 5.” What could not be arrived at directly and absolutely is now apparently achieved through a proportionality. Price offer seems after all to measure desire—but relatively.

This is all very good provided we assume that x equals y , which, however, appears to be the sum total of the meaning of “ratio of equality” at the “point of indifference” of expenditure. The conclusion is contained in the premise and can rise no higher than the source. *If* x equals y , then it follows mathematically and inevitably that x is to y as 5 is to 5; yet this is stating nothing new; it is simply

⁷ Cf. Davenport, *The Economics of Enterprise*, pp. 100-101.

another way of saying that we are *assuming* that x equals y .

But does x equal y when the price offer with respect to two apparently conflicting desires is the same? We are evidently back again where we started, for this is precisely the question the utility theorists set out originally to answer. They have, however, provided no answer, except in the same sense that imagining a stick exactly as long as an actual stick and measuring the one by the other affords an "answer."⁸ While they were assuming, for purposes of schematization, an abstract alternative desire competing with every real one at a given price offer, they at the same time thought of the abstract desire as *equal* to the real one.⁹ But the result remains an unreal assumption nevertheless. No proof or verification is offered.

A concrete example or two may further elucidate the significance of this double assumption. Times unquestionably exist when there is an actual conflict between desires which appear to be "equally" urgent. A prize fight and a debate, both of which Mr. A. desires to attend, occur on the same night. If they came on different days he would attend both. There are times, also, when Mr. A. cannot readily decide whether the five dollars he has to spend should go for a hat or a pair of slippers. He needs both and will eventually buy both, but at the moment he does not know which to get first. Such contingencies occur in the lives of all of us. But there is no inevitable implication here, because the desires to attend the debate and the prize fight seem "equally" urgent or intense, that the prices of the tickets must be the same. Nor is there any necessary implication, because of the hesitancy over the expenditure of five dollars, that the utility of the hat "equals" the utility of the slippers. The alleged proportionality between utilities or desires and price offers is evidently something to be proved; it is not something that can legitimately be assumed. Most of our everyday experiences serve to indicate, in fact, that the assumption is decidedly false.

Suppose the alleged proportionality between desires and price-offers were actually true, what would be some of the necessary con-

⁸ Cf. chap. vii, sec. 24 A, above.

⁹ Of course, if the actual and the assumed desire were in fact precisely equal, no choice between them could ever be made and thus no purchase would result. As in the Greek legend, our desires would remain in a condition of eternal suspense. Cf. Davenport, *The Economics of Enterprise*, p. 101 n.

clusions? Assume, in the above illustration from Mr. A.'s economy, that we are dealing with a conflict of desires for hat and slippers, which, though their absolute intensities are unknown, are "at the point of indifference" relatively the same. During such a conflict, it is contended, Mr. A.'s desire or utility for a hat is exactly equal to his desire or utility for a pair of slippers, since he is willing to pay the same price for each. If at another time he is willing to pay eight dollars for a pair of shoes and four dollars for a hat, it would be logical to conclude that the intensity of his desire for shoes (whatever the absolute degree) is just twice the intensity of his desire for a hat. If at the same time he is also willing to pay forty dollars for a suit of clothes, his desire for clothing should be to that for a hat as ten is to one. In short, at that moment Mr. A.'s desire to cover his body is ten times as intense as to cover his head, and his desire to cover his feet is twice as intense. Such a conclusion is obviously absurd.¹⁰

If the imputed proportionality does not as yet appear sufficiently foreign to actuality, extend the illustrations to other desires. After all, hats, shoes, and a suit of clothes fall into one broad category, clothing, within which it might be assumed that particular desires are somewhat homogeneous. But how about the desires for a hat, a dinner, an opera, an automobile, a ton of coal, a bungalow for two, and a bottle of champagne, for which Mr. A. on a given day contemplates the expenditure of \$4, \$2, \$3, \$800, \$16, \$8,000, and \$5, respectively? Does it seem reasonable to say that, with respect to the hat, Mr. A. desires a dinner one half as intensely, an opera seat three quarters as much, an automobile two hundred times as extremely, a ton of coal four times as strongly, the bungalow two thousand times as much, and the champagne one and one quarter times as intensely? Do human desires, as desires, operate in any such fashion? No quantitative relationships between the intensities of different desires and price offers have in fact been experimentally demonstrated, and our common sense and personal experience tell us that the whole conclusion is utterly unreal.

It is of course true that a desire varies in intensity; there is more of

¹⁰ Cf. chap. xxiv, below, on "Comparative Value" and a following section (sec. 49) on natural versus artificial contributions to utility.

a want at one time and less of it at another. But to admit this is one thing. To assume that the intensity of different desires is proportional to price offers is quite another thing. The intensity of a given want—the more or the less of it—may be roughly compared from time to time.¹¹ But a quantitative comparison of the intensity of one desire with the intensity of another desire appears to be unknown to psychological science.¹² Without empirical evidence, one has no more right to assume a quantitative comparison between a hat want and a champagne want than to assume that a drink of champagne will serve the purpose of a head covering, although in a sense known only to the initiated several drinks might serve many an otherwise impossible purpose. It would thus appear that only in the might-have-been shadowland of fictitious assumptions can homogeneity and commensurability between different desires be postulated without the absurdity appearing on the very face of things.

In a quotation previously given from Davenport, it was admitted that *between* individuals one cannot make comparison among desires, for these are so unlike, so different in kind, strength, vividness, and intensity, that it "is possible only at the sacrifice of all clear thinking" to attempt to find any homogeneity or commensurability between them.¹³ But does not the same situation maintain *within* the individual? No more in the one case than in the other would it seem that any mathematical comparison can be made among desires, for these (whether between individuals or within a given individual) are more or less unique—the desire for an orange cannot be compared with the desire for an opera—and their strength, vividness, and intensity are also apparently more or less unique unto themselves. If the attempt to measure desires between individuals, quite apart from inequalities of income, is a "pernicious error . . . the result of slipshod thinking," it is here contended that the same unhappy indictment must be brought against the attempt to measure through price offers the desires residing in any given person. In fact, a better case could probably be made out for the commensurability of an orange

¹¹ Cf. chap. xxiv, below.

¹² Cf. Wesley C. Mitchell, "Bentham's Felicific Calculus," *Political Science Quarterly*, June, 1918, pp. 161-183, and John Laird, *The Idea of Value*, pp. 25, 340-347, 359.

¹³ Davenport, *The Economics of Enterprise*, p. 97.

want between two persons of the same age, health, upbringing, purchasing power, and rate of consumption (involving in its satisfaction, as it does, similar senses of smell and taste and utilization of digestive juices in mouth, esophagus, and stomach), than between an orange want in a given person and his desire for a swim, where entirely different and unlike biological and psychological activities enter into the resultant satisfactions.¹⁴

The alleged proportionality, therefore, between desires and price offers is an untenable presumption: first, because desires, whether between or within persons, are more or less unlike and unique; secondly, because the hypothesized "ratio of equality" at the "point of indifference" of expenditure, as advanced by the utility theorists, is everywhere simply an assumption with no verification attempted; and, thirdly, because the assumed alternative shadow desire, thought of as equal to and competing with every actual desire, is contrary to the facts of experience.¹⁵

SECTION 47. THE QUESTION OF PECUNIARY CHOICE

There are several other problems, having to do with the alleged relation between utility or desire and price offers, which should be further explored before our examination of the tenability of the position of the utility school can be concluded. One is the important though still obscure matter of pecuniary choice. If the satisfaction of one basic desire cannot be substituted for the satisfaction of another—if wants are not for the most part interchangeable and commensurable—how explain the apparent conflicts and choices that do occur from time to time? And must there not be many of these conflicts, for each person every day, to account for the falling off or enhancing of demand that constantly takes place?¹⁶ The answer to the first question, in the light of the analysis of the last section, would

¹⁴ Cf., pp. 319-321, below; Laird, *loc. cit.*

¹⁵ Cf., also, Hobson, *Work and Wealth*, p. 334: "Quantitative analysis, inherently incapable of comprehending qualitative unity or qualitative differences, can only pretend to reduce the latter to quantitative differences. What it actually does is to ignore alike the unity of the whole and the qualitativeness of the parts." The whole of Hobson's last chapter is apropos in this connection.

¹⁶ Cf. Davenport, *The Economics of Enterprise*, p. 100. Cf., also, chap. xx, sec. 79, below, for other views of Davenport.

seem to be that the conflict and choice are not as a rule between fundamentally different *desires*, though such apparent conflict does on occasion occur, but between *commodities* that will each answer a given desire, so that in the end the desire is satisfied but in a way other than was at first contemplated; or the apparent conflict has to do with the question of time and simply results in the postponement of the purchase.¹⁷ Mr. A. has four dollars to pay for a hat. He may have a certain hat in mind but finds, contrary to his expectation, that its price has advanced to five dollars. What to do? The result may be the purchase of *another* hat, less to his liking, but costing what he is ready to pay, or the decision may be that the old hat will do for a few weeks longer and that in the meantime the price of the hat desired may be reduced. In any event, Mr. A. will secure a new hat sooner or later. He may on the day in question buy shoes and not a hat, but that need not imply that he wants the shoes *more* than the hat—such a comparison has been seen to be rather meaningless—it may simply imply that he has postponed his hat purchase till another day.¹⁸ We assume that he wants and will eventually buy *both* when the prices are “right.” There is here no real conflict or choice between desires in the sense presumed by the utility theorists.

And what has just been said furnishes an answer also to the second question raised at the beginning of this section. Certain fluctuations in demand for given commodities occur both because people can often postpone purchase and because they have a choice between alternative commodities of the same order (a number of different kinds of hats, for example). For the most part it seems that there is no extensive fundamental conflict at all. Want or desire needs to be satisfied in some way and, as a rule, it will be satisfied, usually in some habitual way or in a manner modified by unforeseen circumstances.

One of the important considerations in this matter of pecuniary conflict, when it does occur, appears to be whether or not the price is regarded by the prospective purchaser as “fair” or “right.” On what

¹⁷ Cf. Henry W. Stuart, “Phases of the Economic Interest,” in *Creative Intelligence*, ed. John Dewey (New York, 1917), pp. 310-340; also, pp. 218 and 291-292, below.

¹⁸ Cf. on Preference, in chap. xxv, sec. 101, below, espec. distinction between “more than” and “rather than” comparisons.

basis is this determined? Apparently on the basis—except for novel and untried commodities¹⁹—of what through custom we are prepared to pay. Nor would there seem to be any necessary, much less measurable, relationship between habitual price and intensity of desire or utility. Early in life people become accustomed to finding certain prices associated with certain commodities, especially with staple commodities. Long before the growing child has occasion to think in terms of the purchasing power of money or the utility of goods, he is “sent to the store” or in other ways gets acquainted with the price tags attached to some of the things he uses. His habits are conditioned, here as elsewhere, by an institutional setting.²⁰ Later, as he becomes self-supporting, what he can afford to pay for the major items of his budget is taken into consideration, whether consciously or unconsciously. He would like to have many things; he can afford a much smaller variety; he sets aside so much for food, so much for shelter, so much for clothing, and so much for other major divisions of his budget.

What he has to pay and what he is accustomed to pay are his primary concern here, not conflicts between fundamental desires; for food, shelter, clothing, sundries, advancement, and certain miscellaneous items must, in accordance with the standard to which he is habituated, be provided for. Within each major division he may go so far as to estimate what he can spend weekly or daily for various items. Take food as an example. Mrs. A. has a weekly allowance therefor. She must make this do. She subdivides it for daily use, and her choices for food are made accordingly. She soon learns, if she does not already know, what she *has* to pay for various food commodities and makes her purchases accordingly. Does she ask herself at every turn, or at any time, whether the price of eggs today measures the present intensity or the sum of the desires of her husband, herself, and her children for eggs? She apparently does nothing of the kind. If the price of eggs is the price to which she is accustomed and she needs eggs, she will purchase some. If the price has gone down she may purchase more than her usual quota; but not on the

¹⁹ Cf. Stuart, *op. cit.*, pp. 318-322.

²⁰ Cf. Charles H. Cooley, “The Institutional Character of Pecuniary Valuation,” *American Journal of Sociology*, Jan., 1913, pp. 543-555.

score, as indicated elsewhere, of any assumed "diminishing utility"; on the score, rather, that she will naturally want to buy as many as practicable with the price down.²¹ If the price has gone up, she may demand a reason from the grocer and buy eggs just the same if the reason satisfies her, or temporarily substitute something else for eggs. If she endeavors to balance the family diet, it is the "balanced diet" within her means which is the criterion and not any assumed "equality of utilities at the margin."²²

People are as a rule willing to pay what they have been in the habit of paying, and the customary price to each of us, as already suggested, has a long history, beginning not only with early youth but with the institutional setting into which we are projected at birth. To assume that the price of a commodity to which Mr. A. was introduced in childhood and in terms of which he has habitually thought for years, except where he was forced to consider the cause or the "propriety" of a change downward or upward—to assume that by some legerdemain this price has come to measure the utility of the commodity to him, or the intensity of his desire for it, is evidently making the wish father to the thought, that is, giving a meaning to "amount" of utility or "intensity" of desire which makes it equal to willing-to-pay price and then, by a simple inversion of the process, "finding" willing-to-pay price equal to "intensity" of desire or "amount" of utility.

Any slight fall in price is accepted by the purchaser without much question; but a rise usually calls for an "explanation," which may take the form of attempting to show that the increase is justified by "rising costs." If there is an increase in price, therefore, the increase will generally be considered "fair" or "just" on such a showing, because rising costs of production warrant it, not because it is held to fail to measure the good's utility. Who ever heard a customer complain that the higher price is not "fair" because it no longer measures the utility of the good to him?

Let it not be hastily concluded, however, that willing-to-pay price must equal cost of production, for the observation regarding "fairness" is presented only with respect to price *increases*. Customary price still apparently remains one of the bases of pecuniary choice, in

²¹ See p. 169, above.

²² Cf. chap. xxiv, below, espec. Hobson's illustration of an artist's painting.

the long institutional history of which, utility or desire and cost of production undoubtedly play some role, but into which many other institutional factors enter also.²³

SECTION 48. FREE GOODS AND ECONOMIC GOODS

It is a truism in economic theory that there are some "goods" provided by nature gratuitously, such as air and water or a sunset and the song of birds, which are by definition placed outside the economic category. This limitation of the field of economic goods to those not freely supplied is useful for certain purposes, but it should not hide from us (as it unfortunately sometimes tends to do) the significance of those "goods" that lie outside, in understanding the relation of utility or desire to price. Air and water possess utility in the human economy; they satisfy wants or desires; they are part of a broader genus of goods of which economic goods constitute a special class.²⁴

Nor is there any sharp line of demarcation between economic and free goods and, therefore, between the one kind of desire or utility and the other. Air is usually a free good, but when Mr. A. pays a higher rental on an apartment to secure cleaner or purer air, the latter becomes economic. This is to state the obvious in economic reasoning, but certain important implications are apparently not at all obvious. Let us say that last year Mr. A. got his air free but that now he is forced to pay a five-dollar extra rental each month in order to have the use of similar air. Can it be said that the utility of the air is greater or that his desire for it has increased because he now pays a price for it? There are, of course, some goods which are desired by the wealthy largely because they are expensive and for

²³ Cf. Ezekiel H. Downey, "The Futility of Marginal Utility," *Journal of Political Economy*, April, 1910, pp. 253-268; also, Cooley, "The Institutional Character of Pecuniary Valuation," pp. 543-555. Cooley says: "The influence of the market is not secondary either in time or importance to that of the person; it is a continuous institution in which the individual lives and which is ever forming his ideas.... The institution largely dictates the valuation which it afterwards equilibrates.... In pecuniary matters one accepts in a general way the current values" (p. 547). Cf., also, Downey's institutional analysis, chap. xvii, sec. 64, below.

²⁴ In the light of the distinction already made between possessive and consumptive interests, it is unnecessary here to comment upon the specious reasoning which leads to the absurd conclusion that the utility of a free good is zero.

which the desire would diminish if price fell, but this type of prestige-good is obviously a secondary complication in our problem; it need not be taken into account here.²⁵ Prestige values apart, there is no reason to suppose that the desire for air, and therefore its utility, is affected whether it be free or economic. In short, here there is apparently no relation at all between desire or utility and price.

Now let us suppose for the moment that nature supplied all goods gratuitously and that man had to put forth virtually no effort to fashion them into the form most suitable for his needs—as is the case with the birds of the air and the lilies of the field—would he not still desire food and shelter and clothing and amusements and advancement and other things? Would these not continue to possess utility for him? Merely to frame these questions indicates the answer. In each one of us nature has instilled certain desires, some of them fairly fixed and others more flexible, but all clamoring for satisfaction. Whether it be the air we freely breathe or the opera for which we pay a price, it would appear to be all one, so long as desire or want is fulfilled. No more in the one case than in the other does price seem to measure the utility involved.

SECTION 49. NATURAL AND ARTIFICIAL CONTRIBUTIONS TO UTILITY

A third question bearing upon the general problem before us has to do with a further application of the foregoing free-goods argument to economic goods as such. After all, free goods are relatively few, even though some of them are of vital importance, and conclusions drawn primarily from them may be somewhat misleading for economic theory.

Granted that nature rarely supplies goods so abundantly that some effort or “sacrifice” is not needed to secure them, she is nevertheless bountiful; there is an element of “free gift” in all economic goods—sometimes a great deal of gratuity, at other times very little. The strawberries on the table, the trees that were cut down to make the boards for our houses, the wool that enters into clothing, the gas that we burn in our ranges, the ocean in which we bathe—on every hand nature gives of her bounty. Man puts forth effort in picking the strawberries and bringing them to the table, in cutting the

²⁵ Cf. Keasbey, “Prestige Value,” p. 461.

timber and nailing it into place, in shearing the sheep and fabricating the wool into cloth, in piping the gas to the stove, in building roads to the seashore; but what about nature's energy in producing the strawberries, the trees, the sheep, the gas, the sea? Is this not also part and parcel of the final consumable good and of its want-satisfying power? It is the *total* good which reflects value or utility and not just that part of it which man had had a hand in fashioning. In the complete utility of an economic good, natural and artificial contributions are thus conjoined.

Nor is man's contribution to the finished product in any sense always in the same ratio to nature's. In the "making" of strawberries or the ocean, man may contribute very little; in the "making" of a house or an automobile, much more; what part of a consumable good is nature's handiwork and what part man's varies from good to good, and obviously in no instance can the relative contribution of each be assessed. To say that economics deals with only that portion of a good's utility for which man's effort is responsible is an attempt to surmount the difficulty here portrayed, but such an attempt is futile since man's wants are satisfied, as has just been indicated, not through an incalculable portion of a consumable good's total but through an indivisible whole, that is, indivisible in that nature's and man's contributions to its utility are inseparably united.

So far as the satisfaction of human wants is concerned, the mere bringing of strawberries to the table is meaningless, since the strawberries themselves are the primary consideration. And so it is with any other artificial utility subtracted from that which nature furnishes. Even though we could determine the money cost of the utility added by man, we could never determine the utility supplied freely by nature, the proportion of which to the whole varies incalculably from good to good.

It is sometimes thought that the money price we are willing to pay for a good, rather than go without it, measures this total utility; but it is hardly conceivable that anyone is really willing to pay a price for something that nature gives gratuitously. The stock illustration of the man about to be deprived of air or water is quite beside the issue; when a man's life is threatened he may give up all he possesses. Such a contingency provides no measure for ordinary pur-

poses. It merely demonstrates that there are no alternatives to air and water, whereas for the great majority of goods there are substitutes. What we are ordinarily willing to pay for a good rather than go without is doubtless determined in part by what we should have to pay for the nearest substitute, in part by our relative purchasing abilities, and in part by what we are accustomed to pay for the good in question. Nowhere is there any rationality in supposing that we are ordinarily willing to pay something for the free gift of nature. In short, the free-gift portion of the total utility of a good can in the very nature of things never be measured, which is simply another way of saying that utility as such can never be measured, whether in terms of price or otherwise.

There is still another question which needs to be taken up in this connection. Recognizing that a desire or want is more intense at one time than at other times, shall we not put forth more effort to gratify the intense want, that is, shall we not be willing to pay more in money or sacrifice to have it satisfied? The answer here must, of course, be in the affirmative, except as certain considerations that have already been analyzed apply here also. A portion of the utility that goods possess is supplied by nature, a varied and indeterminable amount; the proportion thus contained in goods that satisfy intense wants may be very great or it may be little; there is no way of calculating. Therefore, even though we would naturally be willing to put forth greater effort to satisfy intense wants, should that be necessary, there is no way of ascertaining how much of the total satisfaction nature is constantly supplying, for which reason the effort we put forth or the money price we pay can hardly be a measure of the intensity of the want fulfilled and thus of the utility involved—overlooking for the moment that we are here assuming that the intensities of different wants or desires can be compared—a very dubious assumption.²⁶

SECTION 50. SUMMARY OF CRITICISM OF MAIN UTILITY ASSUMPTIONS

Our analysis of the four parts of the two major contentions of utility theorists may now be briefly epitomized:

- (a) Diminishing utility or desire seems far from being a general

²⁶ Cf. chap. xxiv, below.

phenomenon in economic activity; the utility curve may be either positive or negative in slope and more often it is zero in slope, which means that, for the most part in human experience, there is a steady, habitual rate of consumption of successive units of a good, with neither diminishing nor increasing utility manifesting itself.

(b) The alleged determinative significance of the margin in utility analysis is, as Marshall pointed out, without foundation.

(c) The contention that diminishing utility accounts for the negative slope of demand curves is evidently in the main contrary to fact, and two other hypotheses are apparently sufficient and competent to explain it, namely, the "law" of unequal incomes and differing desires and the "law" of prudential expenditure under relatively fixed budgetary allotments.

(d) In short, the contention that utility determines market price would seem to be erroneous: first, because whatever force it was supposed to have gathered from the generally diminishing-utility, utility-concomitant-with-demand, and marginal assumptions has been dissipated; secondly, because the ratio-of-equality argument appears to be a fiction, contrary to actual experience; and, thirdly (in the light of the fact that we are ordinarily willing to pay what we are accustomed to pay, that free goods have utilities which are probably little changed when they become economic and command a price, and that there is a variable and incalculable element of the free gift of nature in all utility), because there is no tangible correlation, much less a proportionate or measurable relation, between price offers and desire or utility (whether marginal, average, or in any other form). Thus both major contentions of the utility advocates would seem to be fallacious, while other more realistic hypotheses are available to explain the relation, or lack of relation, between utility and price.

Combining these criticisms of the chief contentions of utility proponents with the preceding criticisms of cost theory, we may conclude that there appears to be little in this classical and neoclassical structure of dialectic which is not pseudoscientific, fallacious, or inadequate to an understanding of modern economic phenomena.

PART III

SUPPOSITIONS UNDERLYING COST
AND UTILITY THEORY

CHAPTER XV

FREE COMPETITION AND HOMOGENEITY OF UNITS

THE ANALYSES of cost theory and utility theory thus far undertaken have viewed these doctrines as they originally were, that is, as the contentions of two conflicting groups of value theorists; and had the two rival groups been allowed to continue to match strength on the plane on which Macvane, for example, contended, the result would probably have been the destruction of them both. Underneath surface conflicts, however, the rival theories had much in common. As the twentieth century got under way, this state of affairs became more and more evident, with the result that in the end there were handshaking and backslapping all around and the inauguration of a live-and-let-live policy. Although at first regarding each other as mortal enemies, these two groups of price-determination theorists later came to see in one another something resembling blood kinship. But are the underlying assumptions which classicism and neoclassicism have in common any more realistic and scientific than the specific assumptions already examined? This is a question to which we now turn.

At the beginning of the present century the classical cost school was settling down to its last defense, namely, to demonstrate that it was "just as good" as its newly enthroned rival, the utility school. It sought to put aside the older ideas of labor as synonymous with cost, and it finally adopted a term antithetical to that which the new school was employing, that is "disutility," meaning thereby an opposite unit to utility, by assumption of like importance in price determination. Seligman at that time apparently regarded utility and disutility as two sides of the same shield, each equally potent, one relating to demand, the other to supply; and Marshall in his famous two-blades-of-the-scissors argument followed the same trend.¹ Other

¹ Edwin R. A. Seligman, "Discussion," *American Economic Association Publications*

economists developed the harmony still further in their doctrines of mechanical and organismic concords.

In one sense, the placing of "cost" and "utility" influences on the same plane was a step forward, since these two phases of the economic-value problem should doubtless be studied in close relationship. In another sense, the transmutation of cost into disutility and the ensuing *rapprochement* between the two schools had the effect of giving a new lease on life to fallacious dialectical arguments which, it may be hoped, would have been abandoned had a thoroughgoing housecleaning been attempted. In the further refinements of utility-disutility analysis, much of the structure of classical thought, the pseudoscientific along with the rest of it, was appropriated and elaborated.

If it may be assumed, with respect to "price determination," that utility operates from the demand side in a way similar to the operation of disutility from the supply side, the question naturally arises as to whether or not some of the criticisms urged against cost theory apply with respect to utility theory also. Among such criticisms, it will be recalled, are the following:

First, cost theory at best applies only under what are thought of as normal conditions, presupposing completely open and free competition among producers, which the classical admissions and Böhm-Bawerk's emendations indicate are the exception, with scarcity and monopoly conditions the rule. The correlative question here would seem to be: Are there obstructions to free competition in demand (utility) similar to those in supply (disutility)?

Second, no homogeneous common unit of subjective cost has been found to exist. Is there anything more homogeneous and commensurable about "utility" and "disutility"?

Third, cost theory assumes conditions of normalistic equilibrium, hedonistic calculations, and a virtually all-pervasive rationalism. Is utility-disutility theory any better off in these respects?

tions, 3d ser., II (Feb., 1909), 247-249, and "Social Elements in the Theory of Value," *Quarterly Journal of Economics*, May, 1901, pp. 321-347; Marshall, *Principles of Economics* (4th ed.), I, 428.

SECTION 51. OBSTRUCTIONS TO FREE COMPETITION FROM
POINTS OF VIEW OF DEMAND AND SUPPLY

Regarding the first of these questions, it was soon appreciated that the same reasoning Böhm-Bawerk used to show deficiencies in cost theory could be turned against his own hypotheses. In fact, Böhm-Bawerk himself admits, after summing up the exceptions noted by Ricardo and adding further exceptions of his own, that there are similar difficulties with respect to the operation of utility theory also. The latter fails in exactness when applied to money and labor, to cases of one-sided competition, and to goods made to order or sold in poorly organized markets. Under conditions of isolated exchange and often in two-sided exchange, it at best merely sets limits within which prices may vary. Böhm-Bawerk's method of escape from these difficulties appears quite similar to that employed by Ricardo, that is, to assume that the admitted exceptions are unimportant and negligible.² There is no reason, however, for supposing them unimportant, writes Macfarlane, who epitomizes the situation by stating that the Austrian analysis rests upon the unwarranted assumption of free competition among consumers just as the older classical analysis rests upon the unwarranted assumption of free competition among producers:

That the orthodox school practically assumed the existence of an ideal condition of free competition among producers cannot be denied. But, as we have endeavored to show, the advocates of marginal utility have assumed a like ideal condition of free competition, or have assumed that there are no noncompeting groups among consumers. That such an ideal condition of free competition, either on the side of production or of consumption, exists generally in the markets of the world, or is permanently established in the market of any one commodity, may well be questioned. It may be that an interference with the freedom of competition is much more frequent among producers than among consumers. And this because of the greater facility for combining which the producers enjoy. But be that as it may, it still remains true that a theory of price which rests upon the assumption of free competition . . . is without sufficient warrant and can hardly be said to furnish us with an ultimate standard of price.³

² Eugen von Böhm-Bawerk, *The Positive Theory of Capital*, pp. 199-233.

³ Macfarlane, *Value and Distribution*, pp. 42-53.

SECTION 52. LACK OF HOMOGENEITY AND COMMENSURABILITY
IN UTILITY AND DISUTILITY

It will be obvious from what has just been said that, like cost theory, marginal utility analysis, if applicable at all, can operate only in that small portion of economic life where consumers are thought of as competing normally, that is, with absolute freedom and with no monopoly situations existent.

The next question is whether, even in this very much restricted sphere, utility can be said to be any more commensurable and comparable than cost. Criticism has already been offered, in preceding chapters of the present volume, of attempts to compare utility or desire between and within individuals. In addition to such criticism, pertinent arguments may be and have been advanced, to cover both utility and disutility claims regarding homogeneity and commensurability, on the score of inequality of incomes.⁴

In his penetrating analysis of this question, undertaken more than a quarter of a century ago, C. E. Persons begins by taking exception to Marshall's statement that economic events "affect in about equal proportions all the different classes of society,"⁵ maintaining, on the contrary, that "the problem of value [price] in modern society cannot be dissociated from the contemporaneous degree of concentration of wealth" and differences in income. Utilizing Taussig's figures on incomes in Great Britain for 1904, which showed that 13 per cent of the population then received about one half of the total income of the British people, the remaining 87 per cent receiving the other half,⁶ Persons pursues his analysis in the following manner.

⁴ Cf. Persons, "Marginal Utility and Marginal Disutility as Ultimate Standards of Value," pp. 547-578.

⁵ Marshall, *Principles of Economics*, I, 205-206. Cf., also, John B. Clark, *The Distribution of Wealth* (New York, 1899), p. 380, who says:

"Similarly, if all society acts in reality as one man, it makes such [utility] measurements of all commodities, and the trouble arising from the fact that there are many measures, disappears. A market secures this result, for society acts as a unit—like an individual buyer." For a later discussion, admitting the effect of inequality, cf. Taussig, *Principles of Economics* (3d ed. rev.), I, 116-133, espec. pp. 124-129.

⁶ For the distribution of British incomes in 1904, see Taussig, *Principles of Economics*, II, 255. It is interesting to note that the distribution at that time in Great Britain was about the same as the distribution of incomes in United States in 1929. Cf. Maurice Leven, H. G. Moulton, and Clark Warburton, *America's Capacity to*

He first pays his respects, in passing, to price as a ratio of exchange between commodities, pointing out that "any influence tending to level the inequalities [of income] by a more equal distribution may easily disturb the existing scheme of value [price] ratios." Suppose, he observes, some of the incomes of the millionaire classes were distributed among the poor:

It will now be worth while to expend more land, labor and capital to produce the new marginal bushels of wheat, marginal housing, and the like; while it will not be worth while to expend as much land, labor and capital as before to produce the marginal automobiles and goods of luxury. . . . The conclusion is inevitable that in any modern society, back of the established exchange ratios—relative value [prices] of goods of necessity, comfort, and luxury—lies the question of the existing measure of concentration of wealth and income.⁷

Next taking up the concept of utility and referring to the illustration drawn from the distribution of British incomes, Persons points out that an ultimate standard of price cannot be found here, since the utilities presented are incommensurate. The marginal utility of the "last unit" for a member of the poor class is much lower than the utility of the "last unit" for the well-to-do class, and the marginal utility of this class is lower than that of the millionaire class: "Here are non-competing groups in consumption as truly as in production and the importance of the conception in economics is not less. For the marginal utilities, in terms of which it is attempted to measure value [price], represent no common terms."⁸

At times when the total national income is decreased, as during a depression, all classes lose their final units of consumption, but the utilities foregone are not of an equal character. The rich lose luxuries; the well-to-do lose conveniences; the poor lose necessities. Since different "marginal utilities" are thus presented for the several classes, none of the utilities can be said to provide a common unit. "Nor can an average be struck of these essentially incommensurable units. They are irreconcilably unlike in kind and quality."⁹

Consume (Washington, D. C., 1934), p. 54, where it is indicated that 13 per cent of American families in 1929 received around 49 per cent of the income. Cf., also chap. xxix, below.

⁷ *Op. cit.*, pp. 549-550. Where Persons uses the word "value," the word "price" is here substituted. Cf., also, Clark, *The Distribution of Wealth*, pp. 391-392.

⁸ Persons, *op. cit.*, p. 554.

⁹ *Ibid.*, p. 556.

With respect to disutility or "pain suffered," a similar situation maintains, and here again no common unit appears. The "final unit" of disutility endured by the ditchdigger involves much greater sacrifice than that endured by the well-to-do farmer, and that of the farmer carries with it greater sacrifice than that of the office manager, and so on up to the millionaire class; yet all of these "final units" of disutility are considered to be alike by classical and neoclassical theorists. In reality, they vary greatly for different classes and furnish no basis for comparison:

Can such dissimilar pains be added or averaged? Will the resultant unit be other than highly artificial? For whom will it measure value [price] in a positive sense? For the poor man impregnated with socialistic doctrine, who sees his painful final period outweighed by the easily rendered final service of the rich, the highly trained or richly gifted? For the rich who look with contemptuous disregard on the stolidly rendered and meagerly fruitful final effort of the poor? Or even for the comfortably well-to-do who proffer complacent advice to the one class and envious moralizing to the other? The unit proposed will satisfy no class, and no individual, unless it be the economic philosopher. It corresponds to no reality. It measures value [price] truthfully for no one when incomes are unequally divided, due to an unequal division of control of productive energy.¹⁰

Such reasoning with respect to disutility is restricted to the pains of labor alone. But the sacrifices of the capitalist and the landlord should be added in order to secure a complete picture of disutility, and when such sacrifices are included, a disutility unit of common denomination becomes even less tenable. For how can the sacrifices of capitalist and landlord be amalgamated with the pains of labor?

What basis of comparison or consolidation can there be between the disutility involved in furnishing the productive energy comprised in the marginal labor of the poorest families and the disutility involved in saving the marginal units of capital furnished by the richest families? The gap is wide and unbridged. One family is driven by grinding necessity to the last exactions of burdensome toil. The other is impelled to careless saving from sheer satiety....

Consider, then, the completed conception of the proposed standard. . . . We must consider, and unify in one standard, the last pains of landless and capitalless laborers; the ultimate sacrifices of the well-

¹⁰ *Ibid.*, p. 560.

to-do, often including marginal labor, marginal savings, marginal abstinence as landholders; and the marginal disutilities of the rich where little labor is rendered, large savings are made, and frequent cases of disutilities connected only with the ownership of lands challenge attention. Is it not obvious that any attempt to combine such unlike factors in a single standard must fail?¹¹

The foregoing criticism of utility and disutility as homogeneous units of measurement is thus applied to the pricing of goods. Similar reasoning pertains also to the pricing of services. Only upon the unreal assumption of an equalistic, classless society, with every man controlling an identical amount of productive power and each being at once laborer, landholder, and capitalist, could the "final units" of utility and disutility of services rendered be even imagined as comparable. In any actual society, with its inevitable disparities in income and its unlike pains and sacrifices, with its noncompeting groups of consumers as well as of producers, no more commensurable measure is in evidence for the pricing of services than there is for goods.¹²

With respect to utility-disutility in general, the following conclusions are drawn:

The ultimate standard of value [price], then, for modern society, does not exist as a positive measure. That it does not is due to the presence of a large degree of inequality. In such a society, either the utility standard or the disutility standard must include incommensurable quantities, or (perhaps better stated) qualities. The problem is insoluble.... One cannot equate and unify either the pains or the pleasures of rich, well-to-do, and poor. We cannot find a positive measure of value [price] in a society with such classes. The ultimate word declares only that, with a given concentration of wealth, the society discounts the pains of the poor in a certain degree. Likewise in such a society there is a corresponding over-estimate of the sacrifices of the rich. Again, in such society the utilities enjoyed by the various classes are measured by various standards. Great pleasures for the poor count little; slight pleasures for the rich count much. We must add to the formula: "value [price] depends on scarcity and utility," the statement "each of these is conditioned by the existence of more or less of inequality."¹³

¹¹ *Ibid.*, pp. 562-564.

¹² *Ibid.*, pp. 564-575.

¹³ *Ibid.*, pp. 575-576.

Disparities in income and in wealth, which must doubtless to some extent always exist, would thus seem to be insurmountable barriers to the formulation of common units of utility and disutility, even though we accept these vague concepts at their face value. And if we add to these difficulties those already examined, that is, the difficulties of equating different varieties of labor pains and elapsed times (the more precise variables behind "disutility"), of comparing more or less unique desires and appetites within and between individuals (and other similar categories lying back of so-called "utility"), and of limiting these concepts arbitrarily to production and consumption respectively, as is done in economics, when we ordinarily think of them in terms of human welfare—then there seems altogether no real basis, with respect to price determination or otherwise, for hypothesizing common units to represent the heterogeneous psychological states encompassed by the ambiguous concepts "utility" and "disutility."

CHAPTER XVI

NORMALISTIC, HEDONISTIC, AND RATIONALISTIC ASSUMPTIONS: VEBLEN'S CRITICISM

THE THIRD QUESTION raised at the beginning of the last chapter is broader in scope than the other two and in part includes them, though with a different emphasis. It is well illustrated in the most important refinements of classical thought following the *rapprochement* of cost and utility theory (which J. B. Clark's system exhibited at their best) and in the ensuing broad criticism of underlying assumptions which shook the classical position to its foundations. This comprehensive critical attack was led in our country by Thorstein Veblen, with whom a new era of economic thought may be said to have begun in the United States.

SECTION 53. CLARK'S SYSTEM OF DISTRIBUTIVE ACQUISITION

Writing at the time of the appearance of one of Clark's works, which he characterizes as "including in due correlation all the 'essentials' of Mr. Clark's theoretical system," Veblen addresses himself to an appraisal of it "as a phase of current economic theory" of that day.¹ Admitting Clark's commanding position among the economists of his generation, Veblen likens him to the great figures in economics of a century previous and in particular speaks of him as

A representative of that classical school of thought that dominated the science through the better part of the nineteenth century. This is peculiarly true of Mr. Clark, as contrasted with many of those contemporaries who have fought for the marginal-utility doctrines. Unlike these spokesmen of the Austrian wing, he has had the insight and courage to see the continuity between the classical position and his own, even where he advocates drastic changes in the classical body of doctrines. And altho his system of theory embodies sub-

¹ Cf. Clark, *Essentials of Economic Theory* (New York, 1907), and Veblen, "Professor Clark's Economics," *Quarterly Journal of Economics*, Feb., 1908, pp. 147-195.

stantially all that the consensus of theorists approves in the Austrian contributions to the science, yet he has arrived at his position on these heads not under the guidance of the Austrian school, but, avowedly, by an unbroken development out of the position given by the older generation of economists.²

Veblen begins his appraisal by pointing out that Clark's system, in keeping with other classical systems, is in the main a theory of distribution, which centers upon a "doctrine of exchange value (or price) and has worked out its scheme of (normal) distribution in terms of (normal) price"; and that, though considerable space is devoted in such systems to consumption and production, these are "construed in terms of ownership, price, and acquisition," the chief emphasis always being placed upon the business community, the market, and the pecuniary concepts of profits and loss. All human motives tend to be here reduced to acquisitive pecuniary terms.³

SECTION 54. VIEWS OF PRIMITIVE, NATURAL AND NORMAL, STATICS AND DYNAMICS

Veblen then turns to the classical notion of "primitive life" which Clark upholds. Somewhat apart from such analysis as has already been undertaken in the present volume,⁴ he goes on to indicate that the effect of the classical assumptions as to what is "primitive" "is simply to throw into the foreground, in a highly unreal perspective, those features which lend themselves to interpretation in terms of the normalized competitive system."⁵

From such conceptions of primitive life, he continues, there develop the dogmas of what the classicists regard as natural and normal:

The "natural" system of free competition, or, as it was once called, "the simple and obvious system of natural liberty," is accordingly a phase of the development of the institution of capital; and its claim to immutable dominion is evidently as good as the like claim of any other phase of cultural growth. The equity, or "natural justice," claimed for it is evidently just and equitable only in so far as the conventions of ownership on which it rests continue to be a secure integral part of the institutional furniture of the community; that is to say, so long as these conventions are part and parcel of the habits of thought of the community; that is to say, so long as these things are

² "Professor Clark's Economics," pp. 148-149.

³ *Ibid.*, p. 150.

⁴ Cf. chaps. ix and xii, above.

⁵ "Professor Clark's Economics," p. 151.

currently held to be just and equitable. This normalized present, or "natural," state of Mr. Clark, is, as near as may be, Senior's "Natural State of Man,"—the hypothetically perfect competitive system; and economic theory consists in the definition and classification of the phenomena of economic life in terms of this hypothetical competitive system.

With such a presumed "natural state of man" as a base, actual economic conditions that do not fit into this preconceived scheme are regarded as mere departures from the normal, as aberrations and excesses or as "perversions of the natural," the cure being the re-establishment of the assumed equilibrium, which takes place more or less automatically. These "aberrations," "excesses," or "perversions" are thought of as temporary, and no effort is therefore made by the classical writers to analyze them in detail. Nor is any serious attention paid to anything but quantitative phenomena.⁶

As a corollary of these highly unreal and abstract conceptions of "primitive," "natural," and "normal," we have the distinction drawn between statics and dynamics in Clark's system, a distinction which, as Veblen indicates, is without meaning, since what Clark calls "dynamic" is merely one phase of what we ordinarily think of as "static." As Clark himself expresses it: "A highly dynamic condition . . . is one in which the economic organism changes rapidly and yet, at any time in the course of its changes, is relatively near to a certain static model. . . . The actual shape of society at any one time is not the static model of that time; but it tends to conform to it; and in a very dynamic society is more nearly like it than it would be in one in which the forces of change are less active."⁷ Thus the more "dynamic" the situation, the nearer do we seem to come to the "static" ideal, until, under a perfect and frictionless competitive system, the dynamic and the static would presumably coincide. Clark's idea of a "dynamic" state is therefore in terms of an imperfect "static" state, although, curiously enough, the more "dynamic" a situation becomes, the nearer is it to reaching the "static norm," neither of these conditions being thought of as quiescent:

⁶ *Ibid.*, pp. 154-155.

⁷ *Essentials of Economic Theory*, pp. 196-197. Of J. B. Clark's other works, see also: *The Philosophy of Wealth* (Boston, 1894), *The Distribution of Wealth*, and *The Control of Trusts* (New York, 1901).

Both are states of more or less intense activity, the essential difference being that in the static state the activity goes on in perfection, without lag, leak, or friction; the movement of parts being so perfect as not to disturb the equilibrium. The static state is the more "dynamic" of the two. The "dynamic" condition is essentially a deranged static condition: whereas the static state is the absolute perfect, "natural" taxonomic norm of competitive life. This dynamic-static state may vary in respect of the magnitude of the several factors which hold one another in equilibrium, but these are none other than quantitative variations. The changes which Mr. Clark discusses under the head of dynamics are all of this character,—changes in absolute or relative magnitude of the several factors comprised in the equation.⁸

SECTION 55. CUMULATIVE CHANGE VERSUS HEDONISTIC EQUILIBRATION

Turning from these considerations to other fundamental suppositions underlying classical and neoclassical theory, Veblen comments upon its hedonistic and utilitarian phases, indicating that these are part and parcel of its static character. In other words, in such theory cumulative evolutionary changes are left entirely out of account:

Economics of the line represented at its best by Mr. Clark has never entered this field of cumulative change. It does not approach questions of the class which occupy the modern sciences,—that is to say, questions of genesis, growth, variation, process (in short, questions of a dynamic import), but confines its interest to the definition and classification of a mechanically limited range of phenomena. . . . The facts of use and wont are not of the essence of this mechanical refinement. . . . *E.g.*, a gang of Aleutian Islanders slushing about in the wrack and surf with rakes and magical incantations for the capture of shell-fish are held, in point of taxonomic reality, to be engaged on a feat of hedonistic equilibration in rent, wages, and interest. And that is all there is to it. Indeed, for economic theory of this kind, that is all there is to any economic situation. The hedonistic magnitudes vary from one situation to another, but, except for variations in the arithmetical details of the hedonistic balance, all situations are, in point of economic theory, substantially alike.⁹

SECTION 56. MECHANICAL VIEWS OF CAPITAL

How such presumptions of hedonistic statics affect the meaning of capital is also well brought out by Veblen. Capital, he says, is

⁸ Veblen, "Professor Clark's Economics," pp. 156-157.

⁹ *Ibid.*, pp. 159-160.

pecuniary in essence, not mechanical. It is the result of a process of valuation, which depends intimately upon "the state of mind of the valuers," and one of its specific manifestations is its "immaterial character." But under Clark's system, capital is presumably regarded as wholly material and tangible, for only physical and mechanical aspects are given consideration. It would thus seem proper to infer, continues Veblen, that "the polishing of plowshares before they are sent out from the factory diminishes the amount of capital embodied in plowshares by as much as the weight or bulk of the waste material removed from the shares in polishing them." As a matter of fact, since the basis of capital is intangible wealth, "the material objects which are formally the subject of the capitalist's ownership are, by comparison, a transient and adventitious matter."¹⁰

SECTION 57. DOGMA OF SPECIFIC PRODUCTIVITY

One of the important effects of a physical conception of capital lies, in Veblen's view, in the inference drawn therefrom that capital and labor each has a "specific" or "final" productivity: "The law of 'natural' distribution says that any productive agent 'naturally' gets what it produces. Under ideally free competitive conditions—such as prevail in the 'static' state, and to which the current situation approximates—each unit of each productive factor unavoidably gets the amount of wealth which it creates,—its 'virtual product,' as it is sometimes expressed."¹¹ The specific-productivity argument is, as one might expect, wholly mechanistic in character. Take a given combination of atomistic units of capital and labor which result in a certain product. Withdraw an increment of labor or capital and a lesser product is secured. The difference between the first and second products is thus the specific product of the interchangeable increments of capital or labor withdrawn. The fallaciousness of this deduction is seen at once when it is recognized that units of labor and capital cannot be regarded as homogeneous and interchangeable, that we are dealing here with joint rather than individual products, and that, whereas the analogy of chemical fusion might be legitimately regarded as somewhat representative of the indissoluble

¹⁰ *Ibid.*, pp. 162-166. Cf., also, Keynes's views on capital, chap. xxxii, sec. 138, below.

¹¹ "Professor Clark's Economics," p. 168.

processes involved, the analogy of a physical mixture does not apply at all.

The same difficulties are, of course, encountered when the argument is reduced to utilities and disutilities, for these show no homogeneity either, as has already been indicated. In addition, it is overlooked, in attempting to balance utilities against disutilities, that there is "no continuity of nervous tissue over the interval between consumer and producer." On this score Veblen writes further:

The balance which establishes itself under competitive conditions is a compound balance, being a balance between the utility of the good to the consumer and the disutility (cost) which he is willing to undergo for it, on the one hand, and, on the other hand, a balance between the disutility of the unit of labor and the utility for which the laborer is willing to undergo this disutility. It is evident, and admitted, that there can be no balance, and no commensurability, between the laborer's disutility (pain) in producing the goods and the consumer's utility (pleasure) in consuming them, inasmuch as these two hedonistic phenomena lie each within the consciousness of a distinct person. . . .

So far, the whole matter might evidently have been left as Bastiat left it. It amounts to saying that the laborer gets what he is willing to accept and the consumers give what they are willing to pay. And this is true, of course, whether competition prevails or not.¹²

SECTION 58. CONSUMER'S SURPLUS AND MONOPOLY GAINS

Elaborating upon the difficulties inherent in the dogma of reward according to specific productivity, Veblen finds two other suppositions in Clark's system which are inconsistent with it—one that the consumer receives a "surplus," and the other that monopolistic rewards are unjust or unnatural:

"Consumer's surplus" is the surplus of utility (pleasure) derived by the consumer of goods above the (pain) cost of the goods to him. This is held to be a very generally prevalent phenomenon. Indeed, it is held to be all but universally present in the field of consumption. . . . Correlated with this element of utility on the consumer's side is a similar volume of disutility on the producer's side, which may be called "producer's abatement," or "producer's rent": it is the amount of disutility by which the disutility-cost of a given article

¹² *Ibid.*, pp. 170-172. For an excellent analysis and refutation of Clark's specific productivity doctrine as such, see Adriance's "Specific Productivity," pp. 149-176.

to any given producer (laborer) falls short of (or conceivably exceeds) the disutility incurred by the marginal producer. Marginal buyers or consumers and marginal sellers or producers are relatively few: the great body on both sides come in for something in the way of a "surplus" of utility or disutility.

These "surpluses" are thought to be created under Clark's system through the competitive processes of price determination by marginal sellers and marginal purchasers. Only these marginal "determinants" are presumed to get the full price-equivalent of the respective disutilities and utilities involved. All others—the great preponderance of those above the margins—secure or endure the surpluses. This is all very well (so far as it goes, and bearing in mind that the deductions are drawn from false premises), except that the result is definitely at variance with the specific-productivity deduction also drawn from classical premises. How can there be a surplus if "the natural law of final productivity" always secures to each man the precise hedonistic equivalent of "the total product that he personally creates?"¹³

Turning to the question of monopolistic gains, Veblen first points out that if the diminishing and final utility argument is carried out in "consistently hedonistic terms, a curious result appears" with respect to efforts at maximizing economic "utility" and minimizing "costs":

The "total effective utility" may commonly be increased by decreasing the output of goods. The "total effective utility" of wages may often be increased by decreasing the amount (value) of the wages per man, particularly if such a decrease is accompanied by a rise in the price of articles to be bought with the wages. Hedonistically speaking, it is evident that the point of maximum net productivity is the point at which a perfectly shrewd business management of a perfect monopoly would limit the supply; and the point of maxi-

¹³ Veblen, "Professor Clark's Economics," pp. 173-176. Cf., also, Joseph Mayer, "Consumer's Surplus," *American Economic Review*, March, 1926, pp. 77-80; Philip G. Wright, "Total Utility and Consumer's Surplus," *Quarterly Journal of Economics*, Feb., 1917, pp. 307 ff.; Harry E. Miller, "Utility Curves, Total Utility, and Consumer's Surplus," *Quarterly Journal of Economics*, Feb., 1927, pp. 292 ff.; Richard S. Meriam, "Supply Curves and Maximum Satisfaction," *Quarterly Journal of Economics*, Feb., 1928, pp. 169 ff.; George W. Terbough, "Psychic Income," *American Economic Review*, March, 1928, pp. 75 ff.

mum (hedonistic) remuneration (wages and interest) is the point which such a management would fix on in dealing with a wholly free, perfectly competitive supply of labor and capital.

Such a monopolistic state of things, it is true, would not answer to Mr. Clark's ideal. Each man would not be "paid an amount that equals the amount of the total product that he personally creates," but he would commonly be paid an amount that (hedonistically, in point of "effective utility") exceeds what he personally creates, because of the high final utility of what he receives. This is easily proven. Under the monopolistic conditions supposed, the laborers would, it is safe to assume, not be fully employed all the time; that is to say, they would be willing to work some more in order to get some more articles of consumption; that is to say, the articles of consumption which their wages offer them have so high a utility as to afford them a consumer's surplus,—the articles are worth more than they cost: Q. E. D.¹⁴

Pursuing the matter somewhat further, Veblen indicates that "the familiar practical maxim of 'charging what the traffic will bear' rests on a principle of this kind and affords one of the readiest practical illustrations of the working of the hedonistic calculus." Up to a certain critical point, the raising of the price of a given article will result in an increased total return (income and utility) to the seller, whereas beyond that point the aggregate return diminishes. The setting of this critical price is thus the goal of monopolistic enterprise; in fact, all business tends to be ruled by the same principle. It wishes to secure a maximum amount of "effective utility" for itself. At the same time, in charging what the traffic will bear, monopolistic enterprise is concerned with the supposed valuations constantly being made by the buyers. Since at the critical price, the buyers pay in the aggregate more than at any other price, the "total effective utility" to them of the limited supply must be greater than that of any larger supply. Additional considerations, which Veblen elaborates, make it appear that under monopoly "the enhancement of the 'total effective utility' of the goods to the consumer . . . must be appreciably larger than the resulting net gains to monopoly."

Such ironic Veblenesque reflections have, of course, not been to the liking of the hedonists and the marginalists, who see in them an attempted *reductio ad absurdum* of their arguments. Veblen pokes

¹⁴ "Professor Clark's Economics," pp. 176-179.

fun at them and terminates his criticism on this score as follows:

By a bold metaphor—a metaphor sufficiently bold to take it out of the region of legitimate figures of speech—the gains that come to enterprising business concerns by such monopolistic enhancement of the “total effective utility” of their products are spoken of as “robbery,” “extortion,” “plunder”; but the theoretical complexion of the case should not be overlooked by the hedonistic theorist in the heat of outraged sentiment. The monopolist is only pushing the principle of all business enterprise (free competition) to its logical conclusion; and, in point of hedonistic theory, such monopolistic gains are to be accounted the “natural” remuneration of the monopolist for his “productive” service to the community in enhancing their enjoyment per unit of consumable goods to such a point as to swell their net aggregate enjoyment to a maximum.¹⁵

The inconsistencies which Veblen thus facetiously discloses lie at the very foundation of classical and neoclassical theory. We have already encountered them in other connections, especially in the analyses by Patten.¹⁶ On the one hand, there is the presumption of a *balance* between production and consumption, an idea handed down from the physiocrats. Assuming such an equivalence, one arrives, “normally” and logically, by way of hedonistic calculations, at the dogma of specific productivity. On the other hand is the fact, recognized as early as Adam Smith’s day, that production *outstrips* consumption, that savings keep piling up, and that labor and capital have become increasingly productive. On these premises, also by way of hedonistic and marginal arithmetic, one arrives at consumer’s surpluses and monopoly gains. Diametrically opposed premises naturally lead to inconsistent inferences, quite apart from normalistic, hedonistic, and rationalistic shortcomings as such.

SECTION 59. A RIGHT AND BEAUTIFUL ORDER OF NATURE

In concluding his appraisal of Clark’s refinement of classical theory, Veblen points to another preconception which, he suggests, seems to color all such reasoning, namely:

There is one right and beautiful definitive scheme of economic life, “to which the whole creation tends.” Whenever and in so far as current phenomena depart or diverge from this definitive “natural”

¹⁵ *Ibid.*, pp. 180-182; also, pp. 190-193.

¹⁶ Cf. chap. xi, sec. 36, above.

scheme or from the straight and narrow path that leads to its consummation, there is a grievance to be remedied by putting the wheels back into the rut. The future, such as it ought to be,—the only normally possible, natural future scheme of life,—is known by the light of this preconception; and men have an indefeasible right to the installation and maintenance of those specific economic relations, expedients, institutions, which this “natural” scheme comprises, and to no others. The consummation is presumed to dominate the course of things which is presumed to lead up to the consummation. The measures of redress whereby the economic Order of Nature is to renew its youth are simple, direct, and short-sighted, as becomes the proposals of pre-Darwinian hedonism, which is not troubled about the exuberant uncertainties of cumulative change. No doubt presents itself but that the community’s code of right and equity in economic matters will remain unchanged under changing conditions of economic life.¹⁷

SECTION 60. VEBLEN’S LATER APPRAISAL OF UTILITY-DISUTILITY THEORY: INSTITUTIONAL ECONOMICS AND PECUNIARY CONCEPTS

In a later analysis covering neoclassical theory more generally, Veblen retraces (though with a somewhat different emphasis) much of the same ground traversed in his criticism of Clark’s system, namely, that such theory deals with distribution only, that it holds fast to an outmoded hedonism, that it is wholly statical in character, that it fails to touch upon phenomena of “institutional growth and decay,” and that it inverts the significance of the main facts of modern economic behavior, which are pecuniary. Particular emphasis is placed upon the last two of these considerations.¹⁸

Regarding the importance of institutional factors, Veblen expresses himself thus:

In so far as modern science inquires into the phenomena of life, whether inanimate, brute, or human, it is occupied about questions of genesis and cumulative change.... The science [of economics] is necessarily an inquiry into the life-history of material civilization....

Like all human culture this material civilization is a scheme of institutions—institutional fabric and institutional growth. But institutions are an outgrowth of habit. The growth of culture is a cumulative sequence of habituation, and the ways and means of it are the

¹⁷ “Professor Clark’s Economics,” pp. 194-195.

¹⁸ Veblen, “The Limitations of Marginal Utility,” *Journal of Political Economy*, Nov., 1909, pp. 620-636.

habitual response of human nature to exigencies that vary incontinently, cumulatively, but with something of a consistent sequence in the cumulative variations that so go forward—incontinently, because each new move creates a new situation which induces a further new variation in the habitual manner of response; cumulatively, because each new situation is a variation of what has gone before it and embodies as causal factors all that has been effected by what went before; consistently, because the underlying traits of human nature (propensities, aptitudes, and what not) by force of which the response takes place, and on the ground of which the habituation takes effect, remain substantially unchanged.¹⁹

It is just here that the dogmas of marginal utility and hedonism fail completely, since they either leave habits and customary ways entirely out of account, giving no place to their effect upon economic conduct and cultural growth, or they treat of them as "not germane to pure theory," as "inconsequential disturbances due to occasional human infirmity."²⁰

With respect to pecuniary institutions, the unreal classical point of view has had the effect of a rather peculiar inversion of ideas. Under modern business conditions, the most important group of institutions are pecuniary ones, those related to the price structure:

The accountancy to which all phenomena of modern economic life are amenable is an accountancy in terms of price; and by the current convention there is no other recognized scheme of accountancy, no other rating, either in law or in fact, to which the facts of modern life are held amenable. Indeed, so great and pervading a force has this habit (institution) of pecuniary accountancy become that it extends, often as a matter of course, to many facts which properly have no pecuniary bearing and no pecuniary magnitude, as e.g., works of art, science, scholarship, and religion.²¹

But whereas this is true, whereas pecuniary ways of thought are so pervasive that they reflect themselves even in human behavior which is essentially nonpecuniary, the hedonistic logic would have us believe that in obvious pecuniary matters they are in reality of no effect, that in business enterprise, which is distinctly a price affair, hedonistic quanta rather than pecuniary concepts are the motivating forces and that considerations of price have a decidedly secondary bearing:

¹⁹ *Ibid.*, pp. 627-628.

²⁰ *Ibid.*, p. 630.

²¹ *Ibid.*, p. 631.

The point may perhaps be made clearer. Money and the habitual resort to its use are conceived to be simply the ways and means by which consumable goods are acquired, and therefore simply a convenient method by which to procure the pleasurable sensations of consumption; these latter being in hedonistic theory the sole and overt end of all economic endeavor. Money values have therefore no other significance than that of purchasing power over consumable goods, and money is simply an expedient of computation. Investment, credit extensions, loans of all kinds and degrees, with payment of interest and the rest, are likewise taken simply as intermediate steps between the pleasurable sensations of consumption and the efforts induced by the anticipation of these sensations, other bearings of the case being disregarded. . . .

Such is not the run of the facts in modern business. . . . The hedonistically presumed final purchase of consumable goods is habitually not contemplated in the pursuit of business enterprise. Business men habitually aspire to accumulate wealth in excess of the limits of practicable consumption, and the wealth so accumulated is not intended to be converted by a final transaction of purchase into consumable goods or sensations of consumption. Such commonplace facts as these, together with the endless web of business detail of a like pecuniary character, do not in hedonistic theory raise a question as to how these conventional aims, ideals, aspirations, and standards have come into force or how they affect the scheme of life in business or outside of it; they do not raise those questions because such questions cannot be answered in the terms which the hedonistic economists are content to use, or, indeed, which their premises permit them to use. . . . So that the whole "money economy," with all the machinery of credit and the rest, disappears in a tissue of metaphors to reappear theoretically expurgated, sterilized, and simplified into a "refined system of barter," culminating in a net aggregate maximum of pleasurable sensations of consumption.

But since it is in just this unhedonistic, unrationalistic pecuniary traffic that the tissue of business life consists; since it is this peculiar conventionalism of aims and standards that differentiates the life of the modern business community from any conceivable earlier or cruder phase of economic life; since it is in this tissue of pecuniary intercourse and pecuniary concepts, ideals, expedients, and aspirations that the conjunctures of business life arise and run their course of felicity and devastation; since it is here that those institutional changes take place which distinguish one phase or era of the business community's life from any other; since the growth and change of these habitual, conventional elements make the growth and character of any business era or business community; any theory of busi-

ness which sets these elements aside or explains them away misses the main facts which it has gone out to seek.²²

We thus bring to a close Veblen's incisive criticism of J. B. Clark's economics and of classical and neoclassical utility theory in general. The passages quoted will, it is hoped, give a fair idea of the rigorous reasoning processes which placed Veblen among the greatest of recent critical writers and of the seeds of his constructive reflection which have since germinated into two new schools of economic thought; namely, institutionalism and price economics.²³

²² *Ibid.*, pp. 632-635. Of Veblen's other works, see also: *The Place of Science in Modern Civilization and Other Essays* (New York, 1919), *The Theory of Business Enterprise* (New York, 1920), *The Vested Interests and the State of the Industrial Arts* (New York, 1920), and *The Engineers and the Price System* (New York, 1921). Cf. also, Joseph J. Dorfman, *Thorstein Veblen and His America* (New York, 1934); Wesley C. Mitchell (ed.), *What Veblen Taught* (New York, 1936).

²³ Cf. John M. Clark, "Economic Theory in an Era of Social Readjustment," and Walton H. Hamilton, "The Institutional Approach to Economic Theory," pp. 280-290, 309-324; also, Oswald F. Boucke, "A Unique Situation in Economic Theory," *American Economic Review*, Dec., 1922, pp. 598-605.

CHAPTER XVII

NORMALISTIC, HEDONISTIC, AND RATIONALISTIC ASSUMPTIONS: MITCHELL'S AND DOWNEY'S ANALYSES

FOLLOWING VEBLEN's penetrating attack upon the premises underlying classical and neoclassical economic theory, several important elaborations and extensions of his criticism appeared, among which the analyses of Wesley C. Mitchell are outstanding.¹ In one of these, after demonstrating that hedonism has been completely discarded by modern psychology and that "in studying human activity we have to deal primarily with habits and instincts," and after indicating the inadequate and misleading psychological premises underlying the systems of economists beginning with Adam Smith and ending with Jevons, who made hedonism "the official psychology of economics," Mitchell divides the economic theory which resulted into four types: Non-Euclidean, Mechanical Self-Interest, Eclectic, and Evolutionary.²

SECTION 61. NON-EUCLIDEAN AND MECHANICAL SELF-INTEREST THEORIES

The first two types, he points out, "are further developments along the straight and narrow path of logic drawn in J. S. Mill's essay and in Jevons's treatise."³ With respect to the first type, Non-Euclidean theory, he cites Pantaleoni's *Pure Economics*, as an example:

Whether and to what extent the hypothesis of psychological hedonism . . . is in harmony or at variance with the motives that really determine human action—either generally or more particularly as regards the acquisition and disposal of wealth—is not a question

¹ Cf. "The Rationality of Economic Activity," Parts I and II, *Journal of Political Economy*, Feb.-March, 1910, pp. 97-113, 197-216.

² "The Rationality of Economic Activity," Part I, p. 103. Cf., also, McDougall, *An Introduction to Social Psychology* (rev. ed.; Boston, 1926).

³ "The Rationality of Economic Activity," Part I, p. 107.

that need be solved before we can decide as to the truth or accuracy of the economic theorems that flow from it. Suppose, indeed, that we refrain from examining the correspondence between the hypothesis of psychological hedonism and actual fact, and that we regard that hypothesis as non-subsistent, or as subsistent in an unknown degree; then provided the economic theorems are rigorously deduced from the premises, they will none the less be incontestable truths, within the limits of the hypotheses. . . . [Economics thus becomes] an idle science, though a true one.⁴

Pantaleoni's contentions are of course correct, except that, in the light of considerations already developed in the present volume, economics would thus be removed from the category of empirical science and be reduced to a purely rationalistic discipline. At the same time, if we are interested in actual experience, that is, in the economic world in which we find ourselves, we can perforce have no use for an "idle" discipline no matter how abstractly "true." What concerns us as scientific investigators is the probable correctness of scientifically drawn hypotheses, and these cannot be devised after the fashion suggested by Pantaleoni.⁵

The second type of neoclassical theory, which represents "the mechanics of self-interest," is akin to the first in that those who occupy themselves with it often make assumptions which are contrary to fact—such as perfect competition or the felicific calculus—but their avowed purpose in so doing is to some extent realistic in that they claim to be thus endeavoring to simplify phenomena which are regarded as otherwise too complex for comprehension. They state that this is precisely what all science does, namely, it lays down hypotheses which are untrue abstractions and simplifications, for the purpose of furthering a more complete understanding of reality itself.

It seems necessary, as we have repeatedly pointed out, to continue to scotch this pseudoscientific point of view in economic theory. Scientific hypotheses, though they *are* abstractions and simplifications, *are not* knowingly untrue, which is to say that they fit the facts as closely as a given state of knowledge allows. When they no longer do this, they are abandoned and still closer approximations to the known facts are substituted. With our present knowledge, perfect

⁴ *Ibid.*, Part I, p. 108, quoting Maffeo Pantaleoni, *Pure Economics*, tr. Bruce (New York, 1898), pp. 3, 9, 10.

⁵ Cf. chap. i, above.

competition, static normality, man as a lightning calculator of pleasures and pains, utility and disutility as measures of price, and similar mechanical and rationalistic abstractions are so far removed from the basic facts of human nature and economic reality that they should, it may be insisted, be completely abandoned and more realistic hypotheses put in their place. In any investigation, unless the assumptions fit the main facts under review, they do not simplify the problem; they merely lead to unwarranted and fallacious conclusions.

SECTION 62. ECLECTICISM AND PECUNIARY LOGIC

The third type of neoclassical theory, Eclecticism, to heed the avowals of its advocates, would seem to be a real step in the right direction. Through sacrifices of logical precision and through carefully worded compromises and qualifications, the strict consistency of the mechanics of self-interest is mitigated in the alleged further interest of realism. Marshall was prominent in this attempt to retain the older assumptions in modified form. But, as Mitchell points out,

The fact remains that the ultimate terms in Marshall's account of economic activity are pleasures and pains, or satisfactions and detriments, as he often calls them. And the skeleton of his theory is put together by treating pleasure and pain as if they were mechanical quantities which can be expressed in mathematical formulas and diagrams. Indeed, in some details he pushes this mechanical method of treatment further than Jevons—for example, in recognizing consumers' and producers' surpluses.⁶

It is this attempt, by a number of noted economists, to retain the substance if not the form of a discarded psychology in their assumptions, which has been so largely responsible for the perpetuation of many of the older classical artificialities and sophistries in present-day economic theory. As a result, economists continue to commit "the intellectualist fallacy," which consists in assuming that economic activity is primarily rational. That economics deals "with a type of activity in which the rational element is peculiarly prominent," there can be no doubt.⁷ But the discipline also deals with a number of nonrational elements; for example, with those pertaining to the

⁶ "The Rationality of Economic Activity," Part I, p. 111.

⁷ *Ibid.*, Part II, p. 199.

work of the rank and file of employees and to the activities of consumption. The naïve acceptance of rationalism forces a neglect of one of the chief problems of economics, namely, of the relation of predominant instinctive dispositions to rational conduct.

Associated with these unreal assumptions is the tendency, stressed by Veblen, to invert the meaning of pecuniary concepts. Mitchell traces the history of this tendency and analyzes its current significance with penetrating power.

Adam Smith set the precedent by "treating money prices, money incomes, and preoccupation with money-making as superficial phenomena." What lies beneath "the money surface of things" thus came to be regarded as the reality in economic processes, with pecuniary habits as unimportant. Such a situation was doubtless true in primitive times before the use of money became widespread. But in the many centuries that intervened between savagery and Adam Smith's day, money had virtually eliminated primitive barter, and pecuniary habits of thought had come to dominate not only business transactions but a great deal more besides. Money as a common denominator for the exchange of goods for goods and of services for consumables had resulted in the conservation of mental effort, in the heightening of economic efficiency, and in the standardization of thoughts and practices which made great co-operative undertakings possible. There has been nothing more blighting for the development of economics than the notion that the use of money is superficial.⁸

In neglecting the role of money, economists have fallen into two important errors. One is the placing of "the man of today and the savage upon substantially the same footing" with respect to business practices. Arguments based on conditions of primitive barter continue, and the chief characteristics of modern economic behavior are overlooked. The other error is the substitution of artificial subjective-cost, hedonistic, and, finally, marginal-utility concepts for the real facts of economic life, for money prices, money wages, money profits, money losses. What is actually the habitual thought has been "read out," and a highly unreal set of abstractions has been

⁸ *Ibid.*, Part II, pp. 206-208. Cf., also, p. 414, below.

"read in." On the inadequacy of marginalism in this respect⁹ Mitchell continues:

The more perfectly the strict logical implications of marginal utility are worked out, the more incomplete does it become as an account of economic processes in the money economy. For the reflex influences of pecuniary institutions upon economic activities cannot consistently be included in a theory which regards the use of money as superficial. That the making of goods is subordinated to the making of money; that industrial experts are similarly subordinated to business experts; that the orderly working of industrial processes is strictly dependent upon the maintenance of the precarious adjustments between various sections of the system of prices; that the rate at which gold is produced and the way in which banking is practiced affect the material welfare of millions of men; that different economic classes feel the disciplining hand of the money economy in such unlike measure as to find difficulty in understanding each other's preconceptions—these are a few among the pregnant consequences resulting from the use of pecuniary concepts which our marginal-utility theorists are prone to overlook. . . .

Pecuniary concepts, then, are much more than a set of empty symbols, which men use merely to facilitate their thinking, but which do not otherwise alter the substantial features of economic activity. Consequently, the theorist who leaves them out of account, in order that he may get an unobstructed view of the realities for which the symbols stand, becomes superficial where he means to become profound.⁹

The question naturally arises, in connection with the development of economic theory since Adam Smith, as to how the significance of pecuniary concepts could have been so completely neglected without the omission becoming long since openly apparent. The answer is that "while ignoring the letter of the pecuniary law, the classical economists and their successors have really exaggerated its spirit." While reading it out of actual practice, they absorbed its essence and not only read it into their unreal hedonistic abstractions but extended its scope so as to make it universal and automatic in human behavior:

Substitute pleasure for profit and pain for loss, let the unit of sensation stand for the dollar, replace accounting by the hedonic calculus, interpret self-interest as the maximizing of net pleasures instead of net profits, and the transformation is complete. The creature of

⁹ *Ibid.*, Part II, pp. 209-211.

hedonic psychology, like the creature of the money economy, has substantially no instincts, emotions, or habits, which are not embodied in the pursuit of pleasure along the road of calculation. Both creatures are essentially passive, so that the theorist accounts for their actions by studying the motives offered by their environments. These external motive forces—net resultants of pleasure-pain or profit-loss complexes—attract and repel men with such mechanical precision that knowledge of their workings is all the knowledge necessary to forecast human action. Complete reliance may be placed upon the rationality of both the pecuniary and the hedonic subject.¹⁰

Let it not be thought, however, that this inversion of concepts is merely formal. The extension of "the hedonistic analogue of pecuniary rationality" from problems of production and distribution (where it applies best) to the "consumption of wealth or the ultimate springs of economic activity" (where it apparently does not apply at all); the "exaggeration of rational calculation as a factor" in guiding human activity; the failure to appreciate the fact that pecuniary rationality is relatively hard for people to assimilate and that for the most part certain fundamentally irrational drives to action are at the basis of human behavior—these and similarly neglected factors of first importance have led to the complete obscuration of really vital economic questions.

Mitchell sums up the shortcomings of the eclectic approach thus:

Why is pecuniary rationality so difficult for men to learn; why do certain classes learn the lesson more perfectly than others; why is its rule firmer in making than in spending incomes; what is the relation of this rationality to the elder traits of human nature; and how far do the latter maintain themselves in the struggle for domination with their younger rival? . . .

We have seen that by taking the facts out of their evolutionary perspective, the economists made the grave blunder of thinking that pecuniary concepts are a set of empty symbols to be disregarded as superficial. By so doing, they made their theory of the current business processes artificial, superficial, and incomplete in certain definite respects, and they obscured the genuine problem of the relation between the ideas of pecuniary value and of serviceability. They were saved from patent absurdities and confirmed in their mistaken practice, partly by the fact that eclectics have never dropped pecu-

¹⁰ *Ibid.*, Part II, pp. 212-213.

niary concepts altogether from sight, but chiefly by the fact that their hedonistic logic ran roughly parallel to pecuniary logic.¹¹

SECTION 63. EVOLUTIONARY THEORY

The fourth type of economic theory which Mitchell reviews, the Evolutionary, differs from the other three in its effort to exhibit human nature in the light of modern psychology and in its genetic approach to economic problems. In these respects it follows the institutional point of view emphasized by Veblen and outlined in the last chapter. An additional quotation from Mitchell's analysis will suffice to round out what has already been said in this connection:

There remain the economists who have made the evolutionary view-point their own, and tried to see their problems in its perspective. In this type of economic theory, human nature is conceived, not as a ready-made something taken over at the outset, not as a postulate whose consequences must be developed, but as itself the chief subject of investigation. When economic activity is studied in this fashion, great importance is found to attach to institutions, because the latter standardize the behavior of individuals. Institutions are themselves conceived as psychological entities—habits of thought and action prevailing among the communities under observation. The explanations sought are genetic; that is, a current economic habit of thought is accounted for by showing when and how it arose in an earlier cultural situation; what curtailments, developments, new applications it has undergone; how it has modified and been modified by the other institutions with which it has coexisted.... [The leading problem of evolutionary economics] is to account for the actual human types which are found in every nation, by tracing the processes by which habits and institutions have grown out of instincts, and by examining the fashion in which the new acquisitions and the old traits combine in controlling economic conduct.¹²

¹¹ *Ibid.*, Part II, pp. 214-216.

¹² *Ibid.*, Part I, pp. 111-112; Part II, p. 216. Of Mitchell's other writings, see also: "The Backward Art of Spending Money," *American Economic Review*, June, 1912, pp. 269-281; "Human Behavior and Economics: A Survey of Recent Literature," *Quarterly Journal of Economics*, Nov., 1914, pp. 1-47; "The Role of Money in Economic Theory," *American Economic Review Supplement*, March, 1916, pp. 140-161; "Wieser's Theory of Social Economics," *Political Science Quarterly*, March, 1917, pp. 95-118; "Bentham's Felicific Calculus," *Political Science Quarterly*, June, 1918, pp. 161-183; "Making Goods and Making Money," *Economics and Engineering*, Joint session of the American Economic Association and the American Society of Mechanical Engineers, Dec. 6, 1922; "The Prospects of Economics," in *The Trend of Economics*, ed.

SECTION 64. FUTILITY OF MARGINALISM AS AN EXPLANATION
OF PRICE

One more analysis may be examined in connection with the considerations reviewed in this and in the preceding chapter.¹³ Downey, writing at about the same time as Veblen and Mitchell and along similar lines, develops somewhat further several of the difficulties and unrealities already outlined. Taking his thesis from one of Veblen's articles, referred to in the last chapter, that marginal-utility theory "has nothing to say of the genesis, growth, or current working of economic institutions," Downey contends that such theory is not only futile in dealing with these larger and more important economic problems but that it is likewise futile in the limited field in which it is, to some extent, presumed to apply. In other words, it is untenable both as a basis for analyzing the process of individual valuation and also as an explanation of how market price is determined.¹⁴

His first contention, bearing on the process of individual valuation, Downey develops as follows:

Deliberation, reasoned choice, plays but a minor part in the affairs of men. (a) Habit, not calculation, governs the greater part of all our acts. Even such calculating and choosing as we do is done only upon the basis and within the limits of habit. Moreover, the habits of thought which count for most in shaping choice are not the result of prevision, but are of the nature of conventions uncritically accepted by virtue of membership in a particular group. It is these conventions, far more than rational appraisal by individuals, that determine the relative "utilities" of "consumers goods." . . . (b) Those acts which are not merely habitual quite as often result from suggestion as from choice (comparison of ideas and selection among them). This would appear to follow as an easy corollary of the economists' postulate that we seek our ends by the easiest path (with the smallest possible effort). Calculation is difficult work. It is much easier to act on a suggestion than to weigh alternatives. The path of least resistance in buying a necktie is to enter a shop where neckwear is attractively displayed and select the cravat insinuatingly recom-

Tugwell, pp. 3-34; "Quantitative Analysis in Economic Theory," *American Economic Review*, March, 1925, pp. 1-12.

¹³ Ezekiel H. Downey, "The Futility of Marginal Utility," *Journal of Political Economy*, April, 1910, pp. 253-268. ¹⁴ *Ibid.*, pp. 253-255.

mended by the engaging salesman. To make an exhaustive canvass of shapes, colors, prices, and of alternative uses of the purchase-money is far more tedious and wearisome. . . . What has just been said as to the influence of habit and suggestion is, of course, a recital of psychological commonplaces. The recital is important only as tending to show that a theory of valuation which places the emphasis upon rationalistic appraisal overlooks the most important features of the process which it seeks to explain.¹⁵

Downey then touches upon the current attempt among economists to escape hedonistic implications either by a change of phraseology, without any real change in content, or by denying that hedonism is basic to their conclusions. On the first score, he observes that such words as "gratification," "satisfaction of desire," and "psychic income" have been substituted without change in meaning for "utility" and "pleasure." On the second score, he points out that those who deny the relevance of hedonism for utility theory usually assert that economic principles have to do with choices between goods or alternative activities and not between underlying motives or utilities. But if choices are not made between pleasures or utilities, why bring in "utility" at all? "If it be admitted that economic choice is more frequently the outcome of habit, suggestion, and the like, than of a rationalistic weighing of alternative gratifications, the marginal-utility analysis of price loses all its significance." It is in fact reduced to the unobjectionable, albeit superficial, statements that people will buy only what they want or need, that in a perfect market they will all pay the same for a given commodity, and that they will not offer more than they are willing to pay.¹⁶

One might add, also, that what purchasers are *willing* to pay is conditioned by factors which the marginalist leaves out of account entirely, that is, by what they are *accustomed* to pay and by what they can *afford* to pay. In addition, what they want is often only what they *think* they want or are *made to believe* they want by skillful advertising and suggestion.¹⁷

Taking up the second major proposition that, "quite irrespective of its psychological inadequacy, marginal-utility analysis falls short of practical usefulness" even in the narrow sphere to which its applica-

¹⁵ *Ibid.*, pp. 255-256.

¹⁶ *Ibid.*, pp. 259, 262; also, p. 178, above.

¹⁷ Cf. chap. xxiii on Value Fundamentals, below.

tion is limited by Veblen and Mitchell, Downey contends that here it likewise fails to solve the concrete problems of price. Nowhere does it get any further than the superficial conclusion, which should in reality serve as an initial premise, that demand and supply determine price.¹⁸

Take hog prices as an example. We start with the relative demand for hog products and the relative supply of hogs and analyze further. The first thing that now confronts us is a complex market organization which can cause, and does cause, wide fluctuations in hog prices "without any marked change either in the pork-eating habits of the population or in the aggregate supply of hogs." Such fluctuations cannot be laid to changing "utilities." Institutional forces are apparently the chief determinants of price, and these marginalism fails to take into account.

Institutional forces, furthermore, determine not only price, but the so-called margin as well:

The "marginal-utility" of turkeys at Thanksgiving is the resultant of very numerous demand forces—the ceremonial fitness of a turkey dinner to express the feeling of thankfulness, the state of trade and industry, the numbers of the population, the diffusion of wealth and of Thanksgiving customs—and of equally numerous supply-forces—the usual cost of growing turkeys (itself in part determined by the price which turkey-growers expect to realize), the accidents of the particular turkey-growing season, the degree of monopoly possessed by private car-lines, the organization of the commission and retail poultry-markets. Any change in any one of the demand factors will alter the "marginal utility" and the price of the existing supply, and will affect the "marginal cost" and the amount of next year's supply. Any change in any supply factor will alter the "marginal cost" and the amount, and hence the "marginal utility," of this year's supply. Hence analysis of these factors is necessary in order to ascertain the position of the margin, either of utility or of cost.

If the "margin" is thus the resultant of institutional price-fixing processes, how can it be regarded as in any sense definitive in fixing the price?¹⁹

Downey concludes, as Veblen and Mitchell do, that institutional settings and customary ways of thought are the important factors

¹⁸ Downey, "The Futility of Marginal Utility," p. 263.

¹⁹ *Ibid.*, pp. 265-267. Cf., also, sec. 44, above.

for economic analysis, not so-called utility and disutility with their unreal and fallacious assumptions. In order to understand the forces which determine price, the pecuniary habits of a people and the particular type of market organization they possess must be made the heart of the study.²⁰

²⁰ Downey, "The Futility of Marginal Utility," p. 268.

CHAPTER XVIII

THE DOGMA OF UNFAILING MUTUAL GAIN IN EXCHANGE

AS AN ADDITIONAL example of the unreality of modern dialectical refinements of classical and neoclassical theory, an analysis will here be made of the dogma of unfailing mutual gain in exchange, which analysis will also serve to bring to the fore a further fallacy associated with normalism, hedonism, and rationalism, namely, the assumption that in modern money exchanges barter transactions still predominate.

SECTION 65. THE MEANING OF THE DOGMA

It has long been an established classical doctrine, still met with in standard textbooks on economics, that each party to an exchange always gains something in "utility" in the transaction, for otherwise, it is asked, how could an exchange be brought about? Unless that which is given up is held in less regard than that which is secured in return, so the argument runs, neither party would be willing to make the trade. Mr. A. has a five-dollar bill and, seeing a hat that he wants, purchases it. "He must therefore want the thing bought more than he wants the money he has to give for it."¹ Let us say, further, that six dollars is the maximum price Mr. A. would have been willing to pay for the hat rather than go without it, this sum representing the "effective utility" of the hat to him, then what he gains, we are told, is the difference between what he is willing to pay and what he actually pays, or, in the case assumed, one dollar's worth of "utility."

If the classical inversion of pecuniary logic is followed, an objection will here be raised to the use of money as one of the terms in the foregoing argument. Money, it is contended, "is wanted not for its own sake but because of its power to give command over other

¹ Cf. Fairchild, Furniss, and Buck, *Elementary Economics*, I, 297; cf., also, discussion, *ibid.*, I, 308-310.

goods”²; it should thus be viewed in terms of the “utility” we expect to secure for it. Constituting the medium of exchange, it stands in a unique position with respect to other commodities. In offering money for a commodity possessing utility for him, Mr. A., it is held, merely completes a transaction which began prior to the receipt of the money.

With this proposed modification, the classical argument proceeds somewhat as follows: Back of the five-dollar bill that Mr. A. possesses stand goods or services which he has exchanged for it; he must therefore have valued these either equally or less than the five dollars or he would not have given them up. If the five dollars represent his daily wage and if we assume that he would be willing to accept as little as three and a half dollars a day rather than remain idle, the corrected result, with the expurgation of money from the transaction, would be pictured in terms of the exchange of a day’s work for the hat. In this exchange, Mr. A. ostensibly gains in “utility” the difference between three dollars and a half (the “effective utility” of the day’s work) and six dollars (the “effective utility” of the hat), or two and one-half dollars’ worth of “utility.” And this is presumed to be, with variations in the amount of utility gained under different circumstances, the typical and unfailing result of all exchanges, which reduce themselves to a matter of barter with the money medium expunged as a mere complication. Note, however, that the alleged amount of utility gained is naïvely measured in terms of the effaced money.³

There will doubtless be little disagreement with the fairness of this presentation, so far as it applies to the doctrine under review. In fact, it will probably be regarded by some as altogether too elementary and axiomatic and therefore in no need of what may seem like painful elaboration. But it is our contention here that this picture is not only superficial and misleading, viewed in the light of its own presuppositions, but, also and more fundamentally, that the implied barter assumption is for the most part inapplicable to modern society.

² *Ibid.*, I, 297 n.

³ Cf. Mitchell, “The Rationality of Economic Activity,” pp. 205-216; also, pp. 213-216, above.

SECTION 66. THE SUPERFICIAL CHARACTER OF THE DOGMA

With respect to the charge of superficiality, the dogma of mutual gain may be thrown into clearer relief by changing the barter illustration to the form more generally encountered in classical economic reasoning.⁴ Mr. B. has a horse that he no longer needs, so he swaps it for Mr. C.'s cow. He values the horse less than the cow or he would not have made the exchange. The same situation is true with respect to Mr. C.'s economy, except that the relative valuations are reversed. Both Mr. B. and Mr. C. seem to have gained in utility. But let us examine the matter a little more closely. Mr. B. may originally have paid seventy dollars for the horse and may subsequently have secured considerable service from the animal, as much, we shall say, as he could possibly have expected, so that any money secured in the sale now is clear gain. On the other hand, the situation might have been quite otherwise. As a result of distemper, the horse might have given Mr. B. no service whatsoever, whereas feed and doctor's bills increased the cost beyond any hope of recovery either in use or exchange; and just as the horse became well Mr. B. found that he now needed a cow instead, for which reason he made the exchange, both the horse and the cow at the time being worth on the market, say, fifty dollars each. Has the completed proceeding, in the second contingency, netted Mr. B. a gain? Obviously not. In other words, a net gain or loss of "utility" in an actual barter transaction must be measured, not only by the circumstances that exist at the time of the exchange, but also by other circumstances which precede and which in themselves involve so-called disutility or utility. Whether the net result is a gain or a loss depends upon all the circumstances involved and not merely upon the fact that an exchange has taken place.

It will of course be maintained that the dogma was never meant to be applied except at the *moment of exchange* and that surely, as thus limited, it is true to the facts. But this interpretation will not stand critical examination, for, as will appear presently, any such limited interpretation is without serious meaning. It will help to a clearer understanding here, if the issue is resolved into two parts:

⁴ Cf. *ibid.*, pp. 215-216.

the first having to do with the nature of the "gain" in the act of exchange, and the second having to do with the nature of exchange itself.

SECTION 67. THE NATURE OF THE ALLEGED "GAIN" IN THE ACT OF EXCHANGE

From the standpoint of the judgments⁵ of Mr. B. and Mr. C. as to their putative "gains," the doctrine under review appears to be a special case of the broader proposition that a person must value whatever he does more than leaving it undone or he would not occupy himself with it. For instance, Mr. D. works because he secures more "utility" out of employment than out of remaining idle. A few other concrete situations may be noted. Mr. E. gets up and dresses; he closes a window; he washes and shaves; he arranges the papers on his desk; he turns on the light; he eats part of an apple; he looks at the thermometer; he brings up a scuttle of coal; he burns his hand on the stove-lid; he puts some ointment on the hand and bandages it. Since a person "values" everything he does more than the not doing, then in every act or group of acts just enumerated there has been a "gain" in "utility."⁶

If it is objected that in these illustrations no differentiation is made between conscious or deliberate and automatic or accidental human activity (as in the burning of the hand on the stove-lid), the obvious reply is that we are dealing here with realistic human situations and that many of these run counter to the classical assumption of an all-pervasive rationalism in human nature, whether viewed in economic terms or otherwise. As a matter of fact, modern psychology appears to insist that most of our behavior is the result of impulse, instinct, habit, or subconscious motivation.⁷ All but one of the ten

⁵ With respect to the importance of judgment in valuation, see Perry, "Economic Value and Moral Value," pp. 452-453, 457; also, chap. xxiii, sec. 87, below.

⁶ If it is objected here that the discussion falls outside the field of economics proper, reference is made to Mitchell, "The Rationality of Economic Activity," and to his emphasis upon the need in economic theory of reaching down to psychological foundations; also, to Frank H. Knight's writings, espec. "Economic Psychology and the Value Problem," *Quarterly Journal of Economics*, May, 1925, pp. 372-409, in which the importance of the relation of economic theory to broader philosophical questions is stressed.

⁷ Cf. Mitchell, "The Rationality of Economic Activity," pp. 98-102, 198-200;

groups of acts enumerated above would ordinarily be performed more or less automatically. The exception might be the bandaging of the hand and the determination of what ointment to use. Mr. E. may have been so absorbed at the time of the other occurrences, that in looking back he would, for the most part, have to *infer* what he had done from the results—from the closed window, the smoothly shaven face, the light, the partially eaten apple. At the time of acting, he may have been generally unaware of what he was doing. We are not always so completely absorbed, for there is a fringe of awareness a good portion of the time; yet the element of deliberation, of conscious calculation, is absent in the great majority of our day-to-day activities. The groups of actions enumerated are fairly typical of what ordinarily transpires in the lives of all of us. Man is no rapid-fire calculator of "utilities" and "disutilities" at every turn—at least not consciously.

And if one wishes to retreat to the limbo of the subconscious and maintain that *homo sapiens* is nevertheless an automatic adder and subtracter of utilities—an hypothesis for which there is in the very nature of things neither proof nor disproof—then in the final calculus one should include not only *all* "subconscious" processes (such as respiration and digestion, among others) but also, to be logical, one should extend that automatic calculating power to the rest of organic existence, to the horse and to the bird and possibly even to the amoeba.

But having made such a retreat, to what does the broader issue reduce itself? It may be that Mr. E., together with the rest of organic existence, "gains" something in each of his acts, whether conscious or subconscious, because in his putative lightning calculations he "values" the doing of them more than the not doing, and that the "gain" may be labeled "utility." But where has the reasoning led us? Does it not merely reduce itself to the generalization that

Downey, "The Futility of Marginal Utility," pp. 255-256; Zenas C. Dickinson, "Economic Motives," *Harvard Economic Studies*, XXIV (Cambridge, 1922); Fleming A. C. Perrin, "The Psychology of Motivation," *Psychological Review*, May, 1923, pp. 176-191; Edward L. Thorndike, *Educational Psychology* (New York, 1913), I; Rexford G. Tugwell, "Human Nature in Economic Theory," *Journal of Political Economy*, June, 1922, pp. 317-345; Wallas, *The Great Society*; Wissler, *Man and Culture*; also, p. 217, above.

organisms instinctively "prefer" to live rather than to die and that the assumed "gain" is the gain of life over death?

This biologic truism, however, does not appear to have much significance so far as economic principles are concerned. That one "prefers" an act which has been performed, including the act of exchange, or else one would not have performed it, is obvious enough, provided "preference" is construed to cover subconscious as well as conscious motivation. But, if the "value" and the "gain" in "utility" are, in the main, the subconscious "gains" involved in following the drive of the will or instinct to live, the meanings thus given to these words strip them of all the technical economic significance usually invested in them. In short, from the standpoint of modern psychology, to say that at the moment of exchange each party must "gain" something in "utility" or he would not make the exchange is for the most part a misleading biologic-behavioristic truism without economic significance.⁸

SECTION 68. SWAPPING OR BARTER NOT GENERALLY INVOLVED IN MODERN EXCHANGE

Regarding modern exchange itself, does the idea of barter really fit the facts it is supposed to explain? Does the analogy of swapping, in the sense of the horse and cow illustration used above, actually apply to modern conditions?⁹ Do we as a rule accumulate and use goods and then later decide to exchange them for other goods that have been accumulated and used? Is it not a fact that what we produce is usually for the *market* and for a monetary return? For example, Mr. F. is proprietor of a business which manufactures one thousand pairs of shoes a day. He does not personally use these shoes for a while and then consider whether or not he will trade them for something else, nor does he value each pair from the standpoint of the "utility" it has for him and then determine what commodities he will take in exchange. Not at all. He sends hundreds of pairs of shoes a day to the market in exchange for a monetary return, which he expects will cover his expenses of production and will in the end leave him with a net profit.

⁸ For other meanings to preference, see chap. xxv, sec. 101, below.

⁹ Cf. Veblen, "Limitations of Marginal Utility," p. 635; also, pp. 207-208, above.

It is this hoped-for profit which interests Mr. F., the "utility" of the shoes to him being nothing more or less than the "utility" of his net income and of the purchasing power it comprehends. To say that he "values" the shoes less than the purchasing power they represent (because he would not give them up otherwise) is without meaning. The shoes have no subjective value at all to Mr. F. except in the light of the purchasing power their sale may accord, and he "values" them *in terms of* this purchasing power. The swapping-of-horse-and-cow illustration simply does not apply under modern conditions, for it assumes that we invariably first attach subjective utility to the economic good we are about to exchange for something else, which is not in any sense the typical situation today. The dogma of mutual gain, therefore, in so far as it takes for granted under capitalistic enterprise the long-since-departed institution of swapping or barter, rests upon an additional false premise, additional, that is, to the normalistic-hedonistic-rationalistic assumptions with which it is at every point bound up. Silas M. Macvane saw this difficulty clearly enough more than twoscore years ago:

In the world as we know it the gain of exchange is not to be found in any comparison of the utilities given and received. The whole gain lies back of the exchange altogether, in the immeasurable increase of the productiveness of industry that arises from division of labor. The act of exchange is but the closing stage in the production of commodities by that method.... When the brick-maker offers bricks in exchange for the general assortment of commodities he needs, our theory of his action and motives must cover the whole case; must not forget how it comes to pass that a man needing a hundred other things, but not needing bricks at all, has nevertheless produced bricks, and nothing but bricks. If we leave out of sight, even for a moment, the one great fact that the man has chosen brick-making simply as a method of getting the general assortment of needful commodities, our theorizing is likely to run wide of the realities of the case. The final utility theory seems to me to be chargeable with this defect. It cuts off exchange from its true occasion and motive, and then invents for it a motive that is never in the minds of the ex-changers. Bricks have simply no utility for the brick-maker; neither have shoes for the shoemaker, ~~no~~ coats for the tailor. The elaborate balancing of utilities which the brick-maker is supposed to make, between his own bricks which he has never dreamed of using for himself, and the shoes, clothing, bread, meat, fuel, etc., that he has

hoped to get by making bricks, has to my mind a very unreal character.¹⁰

A further examination of the more realistic view that we as a rule produce for the market and value our productive effort in terms of the purchasing power it accords, brings to the fore certain additional questions of importance. Is the total of an individual's purchasing power, as expressed in his net income, sufficient to cover his wants? Does he feel¹¹ that he is being paid, if he is a wage earner, just what he thinks his services are worth, or less, or more? These are important questions, for upon their answer would seem to depend whether or not a person really "gains" by the exchange of his services for the purchasing power he secures. There are doubtless many people who feel that they are being paid in wages less than their services are worth. There are possibly some who feel that their incomes exactly measure the value of their services. One may even imagine that there are a few who feel that they are getting paid more than they are worth, even if they will not admit it except to themselves! But how does the dogma of mutual gain view the matter? It implies that everyone is getting paid more than he thinks he is worth, for he would not otherwise exchange his services for the wages offered!

To what, then, does the doctrine of mutual gain reduce itself? Simply to this: We produce goods and services which we value in terms of the purchasing power they accord us. Under modern conditions, we have to follow such a course in order to get what we want. We have ordinarily no choice, for there is as a rule no other way. And the purchasing power that we secure in exchange may be just what was expected; it may be more than anticipated; or it may be less, depending upon what we conceive to be our wants and what we think our efforts are worth.

SECTION 69. SUMMARY OF THE ARGUMENT

To sum up the argument, three specific difficulties are to be found in the dogma of mutual gain in exchange:

The first is that it does not include so-called "utilities" and "disutilities" which have accrued to goods and services *previous* to the

¹⁰ "Marginal Utility and Value," *Quarterly Journal of Economics*, April, 1893, pp. 271-273.

¹¹ Cf. Perry, *op. cit.*, pp. 452-453, 457.

act of exchange. Without this inclusion any putative "gain" at the moment of exchange is meaningless. If the total of "utilities" and "disutilities" is considered, the net result may be just as often a "loss" as a "gain."

The second difficulty has to do with the psychological suppositions inherent in the doctrine, the presumption that man exercises constant rationalism and deliberation in choosing between alternatives and that in making exchanges of goods and services he is a consistent calculator of the "utilities" and "disutilities" involved. Modern psychology countenances no such assumption; motivation is in the main subconscious; instinct, disposition, habit are the chief drives to action, quite often, apparently, regardless of "utilities" and "disutilities." And any claim that man is in this respect a *subconscious* calculating device, simply robs the words "gain" and "utility" of all economic meaning.

The third difficulty takes the form of challenging the supposition that barter underlies the act of exchange under capitalistic enterprise, and involves even that small percentage of choices which may be thought of as deliberately made. Under modern production there is virtually no swapping of goods as ordinarily conceived. We measure the "utility" of our services, when we consciously measure at all, *in terms of* the purchasing power we secure in return. Many a man is paid *less* than he thinks he is worth, whereas the dogma of mutual gain presupposes that everyone always gets paid more!

SECTION 70. THE DOGMA NOW AN ANACHRONISM

In one sense there is an important truth implied in the idea of mutual gain in exchange, and it is doubtless this truth, though hidden in hedonistic and rationalistic misconception and meaningless verbiage, which gives the doctrine most of its vitality. No one will deny that our complex modern industrial system, with its intense division of labor and its multifarious exchanges, is much more efficient than a primitive system where each individual or household produces all it consumes. There is a tremendous gain in "utility" for everyone under the factory system as compared with the household economy. With a fine division of labor and an all-pervasive system of exchanges, utilities can be created and wants satisfied which are many times

greater than primitive methods can encompass. But it is not just the act of exchange which brings these benefits. It is mass production under the machine process which brings them.

In the early stages of the industrial revolution, and thus before the general recognition of the benefits of machine industry, the doctrine under consideration became important. The idea of mutual gain served "to combat the medieval notion of exchange of absolute values, wherein one side gains only as the other loses."¹² Under mercantilism, systems of industrial control had arisen which inhibited exchanges. No man could gain in an exchange, it was held, except at the expense of the other party. In the face of such a misconception, the dogma of unfailing mutual gain was developed. The later doctrine served to combat the earlier one and at the same time assisted in the establishment of capitalistic industry. Having been worked out with considerable logical finesse and under the aegis of the hedonistic calculus, it achieved a momentum which has carried it into the present day. But capitalistic enterprise is now established; no one today questions its benefits as contrasted with more primitive methods; exchange is understood as one of its necessary concomitants. The dogma of unfailing mutual gain has thus long since become an anachronism, and it would doubtless by this time have been buried with honors and now be allowed to rest in peace, were it not still needed to bolster the contentions of normalism, hedonism, and rationalism in economic theory.

¹² John M. Clark, "The Socializing of Economics," in *The Trend of Economics*, ed. Tugwell, p. 82; also, his *Social Control of Business* (Chicago, 1926), pp. 6-7, 37-39, 132-138.

CHAPTER XIX

PSEUDO ANALOGIES: MECHANISTIC AND ORGANISMIC FALLACIES

BESIDES NORMALISTIC, hedonistic, and rationalistic assumptions, there is another group of suppositions which needs to be examined somewhat carefully before our analysis of preconceptions underlying cost and utility theory is complete. This group draws analogies from the physical and biological sciences and uses them in social study without proper scrutiny as to limitations.¹

SECTION 71. MECHANISTIC ANALOGIES

Much of the pseudoscientific reasoning encountered in social study is due to the improper use of illustrations drawn from the fields of mathematics and physics—quantitative measurements, an equilibrium of forces, statics versus dynamics, and the like.² These may be called mechanistic analogies. As applied to social phenomena, they are found in the thought of all peoples, from the ancient Greeks, Hindus, and Chinese down to the present day.

At a time of epoch-making advance in any discipline, as the seventeenth century was in mathematics and physics, the dominant type of social theorizing reflects the current vogue. Thus in the seventeenth century “social physics,” “social mechanics,” “social dynamics,” and “social energetics” saw most extensive development, and we read of man as a type of machine or automaton (Descartes and Hobbes), of individuals and societies “as a kind of astronomical system . . . bound together by mutual attraction or repulsion, like the atoms of physical substance,” and of human actions as a series of circles analogous to the system of Copernicus (Pufendorf). Weigel, during this period, followed Plato in declaring that “Without mathematics human beings would live as the animals and beasts.” In developing various schemes of social mechanics, the chief conceptions of physics,

¹ Cf. chap. i, sec. 3, and chap. ii, above.

² Cf. criticism of Pareto’s methodology, chap. v, sec. 18, above.

such as space, gravitation, inertia, were most naively used. A "moral space" was constructed; a system of social co-ordinates was postulated to indicate the position of man in this moral space; "power and authority were interpreted as resultants of the pressures of 'social atoms' (individuals) and 'social molecules' (groups)." Social dynamics was developed by adding to the preceding type of postulates the idea of "moral time," which was "depicted by a geometrical line; historical processes began to be illustrated by various curves, and an individual's life history, by a curve as of a falling body."³

More recent mechanistic analogies have added little to this seventeenth-century product, with the possible exception of such amplifications as are represented in Jeremy Bentham's "moral arithmetic" or "felicific calculus" and Herbart's "mechanistic psychology." George Berkeley holds that "centrifugal forces are manifest in the form of egoism, which drives persons apart; while the social instincts correspond to the centripetal forces, because they draw persons together. Society is stable when the centripetal forces are greater than the centrifugal." Henry C. Carey declares that "the laws which govern matter in all its forms, whether that of coal, clay, iron, pebble stones, trees, oxen, horses, or men are the same," man being "the molecule of society"; association is merely a variant, he continues, "of the great law of molecular gravitation; man tends of necessity to gravitate toward his fellowman; gravitation is here (in human societies), as everywhere else in the material world, in the direct ratio of the mass (of cities), and in the inverse ratio of the distance; economic value is nothing but a kind of inertia; utility an equivalent of mechanical momentum"; consumption of a product, "nothing else than its passage from a state of inertness to one of activity"; commerce, a "change of matter in place"; and "production, mechanical and chemical changes in the form of matter." Barcelo states that "the body of human individuals, with all its organs and material elements, composes a system which is subjected to the laws

³ For further details regarding such borrowings, see Sorokin, *Contemporary Sociological Theories*, pp. 3-37. Cf., also, Eugene V. Spektorsky, *The Problems of Social Physics in the Seventeenth Century*, in Russian (Warsaw, 1910), I, 554-558; (Kiev, 1917), II, 420-422; Samuel von Pufendorf, *Elementorum Jurisprudentiae Universalis* (2 vols.; Oxford, 1931), reproduced from edition of 1672. Regarding Erhard Weigel's views, see Spektorsky, *op. cit.*, pp. 488-563 (545-546).

of physical mechanics," like any other material system; and that, "in spite of man's desire to escape from the law of gravitation and from all other laws of mechanics, he cannot do it." Bechtereff postulates twenty-three "laws" governing social behavior, declaring that "the laws of the super-organic world . . . are the same as the laws of the organic and inorganic worlds." Winiarski holds that "a social aggregate is nothing but a system of points, *i. e.*, individuals, who are in perpetual movement of approaching or withdrawing from one another." These illustrations might be multiplied indefinitely, but sufficient have doubtless been given to indicate broadly the character of the type of analogy in question.⁴

SECTION 72. SOCIOLOGICAL CRITICISM BY SOROKIN

Such analogies are inadequate and misleading on two main counts: They constitute a twofold logical fallacy and are not borne out by actual experience.

From the point of view of logic they are fallacious: first, because certain judgments, which are logical and self-evident enough when narrowly applied to social phenomena in so far as these have physical aspects, are here assumed to comprehend all that there is to social phenomena; second, because the really broader strictly social aspects of life are in an anthropomorphic manner here read back into physical phenomena where they do not properly belong. It is of course true that, to the extent that man may be regarded as a point in space, or as physical mass, or as a compound of chemical atoms and molecules, or as a system of physical or chemical forces or functions, all physical laws operate upon him just as they do upon other physical entities. No one holds today that physical forces do not operate upon man, so that there is no warrant for talking about a special

⁴ Cf. Antonio Portuondo y Barcelo, *Essais de Mécanique Sociale* (Paris, 1925); Vladimir M. Bechtereff, *Collective Reflexology*, in Russian (Petrograd, 1921), pp. 221-420 (225); Henry C. Carey, *Principles of Social Science* (3 vols.; Philadelphia, 1858-60), I, 41-43; II, 41-42; III, 466-468, *passim*; also, *The Unity of Law* (Philadelphia, 1872), pp. 127-129; Johann F. Herbart, *A Text-Book in Psychology*, tr. Smith (New York, 1891); Alfred J. Lotka, *Elements of Physical Biology* (Baltimore, 1925), pp. 13-17; Mitchell, "Bentham's Felicific Calculus"; Sorokin, *Contemporary Sociological Theories*, pp. 11-23; Leon Winiarski, "La Méthode Mathématique dans la Sociologie et dans la Économie Politique," *La Revue Socialiste*, XX (1894), 716-730, and other articles by Winiarski along similar lines.

"human physics." But the mechanistic analogies usually go far beyond these self-evident facts; they assume that mental and social phenomena are points, masses, atoms, molecules, lines of force, systems of energy, and *nothing more*; and here they lead to erroneous conclusions. The second part of the logical fallacy is the inverse of the first. While the one disregards the characteristic aspects of social phenomena, the other ascribes to physical events human and social characteristics which they do not possess. Sorokin exemplifies these logical inadequacies thus:

If I say, "A human being is an animal with two eyes," my judgment is in some respects true, because human beings have two eyes; but from the standpoint of logical adequacy it is quite wrong, because not only human beings, but many other animals, have two eyes also. The logical predicate, "animal with two eyes," is referred here to the class, "human being," which is much narrower than the class of animals which really has two eyes. Hence the logical inadequacy of the judgment. If, on the other hand, I say, "A human being is an animal which shaves his whiskers," my judgment will be again inadequate, because there are human beings who do not have whiskers (females) and who do not shave them. Here the logical predicate is referred to a logical subject which is in fact much broader than is indicated in the judgment.... All such judgments are unscientific, and the most common shortcomings of various hypotheses and theories consist in just these two kinds of inadequacies.⁵

A science of "social physics" would, on the one hand, be like a hypothetical science of "ten-cent cigars," based upon principles of inertia, gravitation, and space relations, which as a matter of fact apply to all material objects but in the pseudo science are made to appear as the specific characteristics of society or ten-cent cigars alone. On the other hand, by the device of attributing to the physical universe traits which in reality belong only to social phenomena, the two-edged pseudo analogy becomes even more extensive in its erroneous implications.⁶

Turning to the second count in logical criticism, we find no evidence that the presumptions of these mechanistic analogues are

⁵ *Contemporary Sociological Theories*, pp. 29-30.

⁶ Cf. Leo I. Petrajitzsky, *Introduction to the Study of Law and Morality*, in Russian (3d ed.; St. Petersburg, 1908), pp. 65-72; Sorokin, *Contemporary Sociological Theories*, pp. 31-34.

borne out in practice. If Carey's "law of social gravitation" were true, we should expect to see sex and food attraction operate directly as the mass and inversely as the distance, a conclusion which is evidently nonsensical. Other inferences are equally unreal:

Let us take the behavior of individuals, A, B, C, D. Can we explain the immense variety of their actions through the principle of physical mechanics, through that of inertia, gravitation, or by means of the principle of levers of the first and of the second orders, and so on? Do they help us to understand why A becomes a hermit, B marries, C dies on a battlefield, D writes a poem?... Do these principles throw a light on religious, political, aesthetical, and other social phenomena? Can they explain why the history of one people has developed in one way, and that of another in quite a different manner? It is sufficient merely to put these questions in order to see that we are still very far from being able to reduce social phenomena and their mechanics to the simple laws of physical mechanics. For this reason we should be modest in our desire to make such a reduction. We cannot set forth daring but utopian pretensions. Under the existing circumstances, such pretensions are rather comical and childish.⁷

SECTION 73. ECONOMIC APPLICATIONS

The use of mechanistic analogies in economic theory has been amply illustrated in preceding chapters. Natural normality, hedonistic calculations, an equilibrium of economic forces, statics versus dynamics, and their corollaries, are presumptions drawn by analogy from physical science, accepted as valid during a period when the laws of physics and mathematics seemed the dominating, if not the only, forces in the universe, and perpetuated, despite the more recent vogue of biological interest, through the momentum gained at the hands of outstanding economists who made such analogies the bases of their systems. That the application of mechanistic analogies to economic phenomena has only superficial worth and has for the most part led to unwarranted and fallacious conclusions should in our day finally become sufficiently clear.⁸

⁷ Sorokin, *Contemporary Sociological Theories*, pp. 34-36. Cf., also, chap. xxii, sec. 86, below.

⁸ Cf. Gustav Cassel, *On Quantitative Thinking in Economics* (Oxford, 1935), together with review by present writer in *Annals of American Academy of Political and Social Science*, July, 1936, pp. 230-231.

SECTION 74. ORGANISMIC ANALOGIES

When biologic generalizations came to supplement and in part to supplant physical theories in general interest in the second half of the nineteenth century, analogies borrowed therefrom likewise penetrated social and economic thinking. Organismic and evolutionary concepts have also been met with in preceding chapters. J. B. Clark, among other economists, uses both mechanistic and organismic analogies. Veblen and Mitchell, on the other hand, base their criticism of classical theory in part on the score that evolutionary concepts have not been sufficiently employed in economic thinking.⁹

There are many aspects of the organic conception of society, from the crude views of the ancients who knew nothing of scientific biology to current reflections of philosophical and psychological advance. Since all such analogical conceptions partake of the same difficulties and since scientific biology is largely a development of the past three quarters of a century, it will suffice for our purpose to give primary consideration to the modern type of organismic analogy. Society, from this point of view, is defined as a special genus of biological organism, whose origin, evolution, functioning, and life cycle are precisely akin to those of a horse or a tree. It has an individuality, and it has both psychic and physical existence.¹⁰

⁹ Cf. chap. i, sec. 3, above; also, chap. ii, sec. 9.

¹⁰ Cf. Sorokin, *Contemporary Sociological Theories*, pp. 196-200; also, Perry, *General Theory of Value*, pp. 447-452, in which, with delightful irony, he pictures the results of the organismic view of society in the following words:

"It is clear that if the analogy between human society and the cellular composition of the organism is adopted, in so far as an aggregation of men are organized in the image of a man, it must be at the expense of their manhood. If men assume the rôle of cells or organs they must forfeit personal autonomy or delegate it to one of their members....

"In short, the several members of a society can be embraced within one person only in so far as all members save one are subordinated to the purpose which that one has for them. They will enter into the personally integrated society not as interests but as objects....

"A whole is sometimes more highly integrated than its members, as in the relation of the plant to its component cells; and sometimes less integrated, as in the relation of the colony to its component ants. Combining these two types of relationship, we get the case in which an individual whole is both higher than its own constituent members and also higher than the whole of which it is itself a member. The progression from cell to colony is not a steadily ascending progression, as is readily and mistakenly

Commenting upon the views of a number of well-known contemporary writers who use the organicistic analogy, and finding a considerable similarity in them, Sorokin thus sums up the alleged characteristics of the social organism: "First, the society or social group is a special kind of an organism in a biological sense of the word; second, being an organism, society resembles, in its essential characteristics, the constitution and the functions of a biological organism; third, as an organism, society is subjected to the same biological laws as those by which a biological organism functions and lives; fourth, sociology is a science which is to be based primarily upon biology."¹¹

SECTION 75. GENERAL ORGANISTIC CRITICISM

Broadly speaking, organicistic analogies partake of the same shortcomings as do the mechanistic analogies. The same twofold fallacious logical judgments are made, and in practice the analogies are not borne out. But there is much more to be learned, sociologically speaking, from organicistic analogies than from mechanistic ones, so that Sorokin would have us differentiate sharply between two classes of organicistic generalizations: first (the valid ones), that sociology must in large part be based upon biology, that society is not entirely man's artificial creation, and that "it represents a kind of living unity different from a mere sum of the isolated individuals"; and, second (the invalid inferences), that because of the foregoing facts society

supposed, but an ascent and a descent in which the highest point is reached half-way. This intermediate and highest point, is the animal or man.

"John of Salisbury, in the twelfth century, and Nicholas of Cusa, in the fifteenth, made especially notable attempts to correlate the parts of the 'body natural' and the 'body politic.' According to the former writer, 'the prince is the head, the senate the heart, the court the sides, officers and judges are the eyes, ears and tongue, the executive officials are the unarmed and the army is the armed hand, the financial department is belly and intestines, landfolk, handicraftsmen and the like are the feet.' When these feet are in distress, as is so often the case, the state has gout. The ecclesiastics, using the same method, argued against the claims of the state, that if the emperor as well as the pope were a head, the organism of mankind would be a 'two-headed monster, an animal biceps.' The state, owing to the number of its feet, turned out to be a centipede; and the growing strength of the imperial party forced the conviction that mankind did in fact have two heads. Thus the outcome of an effort to enhance the dignity of men was to conceive them as members or organs of a bicephalous centipede."

¹¹ *Contemporary Sociological Theories*, pp. 201-207.

must itself be an organism and must therefore be actuated exclusively by biological laws.

We may say that society represents a kind of system, or a kind of unity, but this is not identical to the unity of an organism. We may say that the social group is a reality of a *sui generis*, different from that of its members taken in a state of mutual isolation. But society does not exist independently, and we must not forget the reality of interacting individuals who compose a given social system. We may say that the laws of biology are to be taken into consideration in an interpretation of social phenomena; but this does not mean that a social system is a biological organism. We may agree that a social system is shaped and controlled not entirely by the forces exterior to it; but this is true in regard to any unity, whether it is a "mechanical," an organic, or a social one. We may agree that society is not an artificial system created intentionally by man; but this is true of the solar system, of organisms, and of a great many other "organic," "mechanical," and "psychic" unities, which have come into existence spontaneously. It is true that social institutions are a product of a great many forces and of a long series of trials and errors, and should not be regarded as something purely "incidental," which may be easily changed at once; but this again is true of a great many other non-social unities.¹²

Fallacious organismic inferences may be epitomized as follows: (1) man is a biological organism and the laws of biology apply to him; therefore [?] human society is a biological organism; (2) society is composed of living substance in the form of human beings; therefore [?] society is organic in structure; (3) society is a unity, its members being interdependent and incapable of existence apart from it; therefore [?] this unity must be organic.

We may be certain by this time that society is neither an organism nor a mechanism and that all analogies applied to social activity are of limited worth and should be used with great caution. It is nevertheless natural that we seek some proper frame of reference with respect to the complexities of social phenomena. We therefore conclude with Sorokin's outline of various points of view regarding society, with the emphasis placed upon the value of the functional approach:

¹² *Ibid.*, pp. 207-213.

Among the fundamental conceptions of society it is possible to discriminate four principal types: first, the *mechanistic conception* of society, as a kind of machine system; second, the *nominalistic or atomistic conception*, which sees in society nothing but individuals, and does not recognize in it any superindividual reality; third, an *organic conception*, which views society as a living unity, recognizing its superindividual reality, its "natural" origin and spontaneous existence; fourth, a *functional conception* which does not care at all whether society is a mechanism or organism, natural or artificial, but which tries to view it as a system of interrelated individuals (a synthesis of sociological realism and nominalism).¹³

The functional or organizational approach to social study is at least free from the difficulties inherent in the mechanistic, atomistic, or organicistic concepts. Through it, furthermore, realistic emphasis may be given to the essential importance of interaction, cultural interrelations, and institutional settings in human behavior, whether in primitive or in more advanced societies.

¹³ *Ibid.*, p. 195.

CHAPTER XX

PSEUDO ANALOGIES: ECONOMIC ORGANISMIC SYSTEMS

WE HAVE NOT thus far dealt with economic organismic analogies as such, even though one of the chief tenets of J. B. Clark's system, which Veblen criticized primarily on other grounds, is organismic in character. The question has been reserved for the present chapter.

SECTION 76. J. B. CLARK'S USE OF ORGANICISM

The development of Clark's system divides itself into two phases, that represented in his early volume written in 1886, and that in his later works of 1899 and 1907.¹ In the first treatise he voices the objection that economists regard society as a mere collection of individuals, whereas it should be viewed as a biological organism with differentiation of function and conscious control by the social organism as a whole. The following passages will serve to illustrate his thoroughgoing use of the organismic concept in his early treatise:

The analogy between society and the human body was familiar to the ancients. It is a discovery of recent times that a society is not merely like an organism; it is one in literal fact. . . . Social organisms, like animal forms, are divided into four general classes, distinguished by precisely the same marks as those used in the biological classification. There are social vertebrates, articulates, mollusks, and radiates. The distinguishing marks are, first, differentiation, and, secondly, cephalization, or the subjection of the body to the control of the brain. The more unlike are the parts in form and function, and the more the structure is subjected to the directing influence of a thinking person, the higher is the society in the scale of organic development. . . .

Society, as an organic whole, is to be regarded as one great isolated being; and this being may and does measure utilities like a solitary

¹ *The Philosophy of Wealth* (1886), *The Distribution of Wealth* (1899), and *Essentials of Economic Theory* (1907). Cf., also, Seligman, "Social Elements in the Theory of Value," pp. 321-347; and Benjamin M. Anderson, Jr., *Social Value* (Boston, 1911).

tenant of an island. This great personage is complex; it has collections of men as its members, and single men as its molecules; and in studying the internal activities that take place when the valuations are in progress, we shall be led into a sort of higher or social physiology, which will develop farther than has yet been done the parallelism existing between the individual and the social organism. It is from this source that, as was stated above, we are to derive our chief light on the philosophy of value.... It is society, not the individual, that makes the estimate of utility which constitutes a social or market valuation. That is a part of our definition,—measure of service rendered to society as an organic whole. Though the thing were priceless to its owner, it might be cheap to society....

As a molecule of nutriment in the human system does not diffuse itself through the body, but passes, by the circulating organs to the part that needs it, so useful commodities, molecules of social nutriment, unerringly follow the circulatory laws of the social system. Nerve tissue to the nerves, bone tissue to the bones, each particle reaches the place for which it is adapted.²

In Clark's later and more mature exposition, both mechanistic and organic analogies are employed, the first much more than the second; but though the latter is less used, it is nevertheless in evidence and serves to round out the harmonic whole of his system. His ingenuous acceptance of society as an organism has not changed. In fact, he definitely refers the reader to "earlier studies" in this connection:

If we understand the philosophy of value, we must take all society into view as the purchaser of things. Each man pursues his own interest; but, as the outcome of his activity, society acts as a solitary man would act under the influence of the law of diminishing utility.... It [effective utility] is measured by society, as a whole; and in this lies the significance of the phrase, "measure of effective *social* utility," which, in earlier studies by the present writer, has been used as a synonym of value. It was on the word "social" that emphasis was laid. The price of a thing gauges its importance, not to one man, but to all men, as organically related to each other.³

Here "social" and "organically related" come to the same thing, which organic presumption in the use of the word "social" applies also to the reasoning of Seligman given below.

² *The Philosophy of Wealth*, pp. 38, 81-83, 86-87.

³ *The Distribution of Wealth*, pp. 46, 227, 378.

SECTION 77. APPLICATIONS TO UTILITY-DISUTILITY
ANALYSIS: SELIGMAN

With the transmutation of "cost" into "disutility" went a marked proliferation of the organismic analogy in utility-disutility theory. Where the arguments of critics could not be readily met otherwise, a dash of organicism seemed to settle the matter. Society, as a highly intelligent being, came to be looked upon as ever alert in equilibrating with omniscient precision one set of tendencies over against another, social utilities against social disutilities, making certain with minute meticulousness that no social disharmonies occurred. The following excerpts, taken from an article written by Seligman in 1901, typify the extent to which the economic organicistic dialectic was applied:

If an apple is worth twice as much as a nut, it is only because the community, after comparing and averaging individual preferences, finds that the desire unsatisfied by the lack of an apple is twice as keen as that unsatisfied by the lack of a nut. Value, therefore, is not merely the expression of marginal utility: it is the expression of social marginal utility. . . . While social utility is made up of a combination of individual utilities,—that is, while a thing cannot be useful to society unless it is useful to the individuals that compose society,—the indirect marginal utility of anything to an individual is the result of its social marginal utility. . . .

We have seen that the marginal utility to an individual is, in effect, a reflex of the social marginal utility. In the same way, individual "disutility" is really a result of social disutility. . . . Since cost is a form of disutility, it follows that the real cost of importance in affecting value is social cost, not individual cost. . . . Social sacrifice means the sacrifice which members of society as a whole are willing to make. The exertion of one man is estimated in relation to the exertion of another, and the sacrifice of each is compared with the needs of society as a whole. . . . When one commodity is exchanged for another, or when both cost the same, it means that the additional sacrifice imposed upon society to replace either of them is the same. The marginal cost is identical. . . . The balance or equilibrium is not between the pains and pleasures of the individual, but between the pains and pleasures of the sum of individuals. The real equilibrium is a social equilibrium. . . .

We see, then, that value may be defined either as the expression of marginal social utility or as the expression of the marginal social sac-

rifice incurred to secure utility.... Just as the classic doctrine of comparative cost really includes the theory of marginal utility, so the attempt of the Austrians to subordinate the theory of cost in general to the theory of utility becomes entirely unnecessary when both doctrines are interpreted in their true social light. While cost and utility in general are by no means equivalent, marginal social cost and marginal social utility are real equivalents.⁴

There is no need to multiply illustrations of the employment of organicism in economic theory or to repeat the general objections to its use made in the preceding chapter. Since the early writings of Clark and Seligman on the subject, organicistic arguments have become much less ingenuous, but the tendency to use them still persists.⁵ They are, in fact, inherent in much of the neoclassical thought of the present day. Critical attacks, however, began almost at once, and soon even utility advocates were found siding with the objectors. Among the most prominent of these were Schumpeter and Davenport.

SECTION 78. OBJECTIONS TO ORGANISMIC SOCIAL VALUE

CONCEPT: SCHUMPETER

In one of his analyses Schumpeter deals directly with the idea of social value as contained in the writings of J. B. Clark, Seligman, Wieser, Carver, and others.⁶ To begin with, he points out that all these writers, as well as those of the older classical tradition, start their analyses of economic theory "with wants and their satisfaction" and that this "implies considering individuals as independent units or agencies; for only individuals can feel wants." Society as a whole cannot experience desire, since it has no sense organs or nervous system of its own:

The stock of commodities existing in a country is at the disposal, not of society, but of individuals; and individuals do not meet to find out what the wants of the community are. They severally apply their means to the satisfaction of their own wants. Theory does not

⁴ *Op. cit.*, pp. 323-346.

⁵ E. g., Anderson, *Social Value*, and Hobson, *Work and Wealth*.

⁶ Joseph Schumpeter, "On the Concept of Social Value," *Quarterly Journal of Economics*, Feb., 1909, pp. 213-232. Cf., also, his *Das Wesen und Hauptinhalt der Theoretischen Nationalökonomie* (Leipsic, 1908).

suggest that these wants are necessarily of an exclusively egotistical character. We want many things not for ourselves, but for others; and some of them, like battleships, we want for the interests of the community only. Even such altruistic or social wants, however, are felt and taken account of by individuals or their agents, and not by society as such.⁷

That in certain ways social contact "sets values on things," Schumpeter freely concedes. The fact that people live together in society and exchange commodities through the market indicates one of these ways. The influence of fashion and imitation in modifying values is another example. Social customs of this character are important as demonstrating the interdependence and interaction of individuals. But beyond such obvious relationships one cannot go in organismic analogies without being misled, unless one accepts communistic implications.

In present capitalistic society organismic analogies would be of more worth if "its members were in the habit of meeting to express their wants and if equal account were taken of all of them, regardless of wealth," if "the same kinds and amounts of commodities were produced" as under communism, and if the principle of distribution approximated to the communistic type. None of these conditions are fulfilled, however, in our present capitalistic society. In analyzing two such radically unlike societies as capitalism and communism, one has to assume in each the production of different kinds of commodities, the assessment of different values to the same commodities, their creation in quite different quantities, and their different apportionment among the people. Under the "social values" of communism, society "must be the sole owner of capital and land," no rent or interest can be paid to individuals, and economic activity of every kind must be worked out for the best interests of everyone. It should therefore be obvious that any attempt to substitute "social value" for the actual valuation processes found in modern capitalistic society can lead only to conclusions that are "separated from reality by a great gulf."⁸

The concept of social value is chiefly instrumental in opening up a

⁷ Schumpeter, "On the Concept of Social Value," pp. 214-217.

⁸ *Ibid.*, pp. 217-221.

thoroughly optimistic view of society and its activities. It affects an important theory and great practical conclusions, and in these the chief interest of the subject centres. Vastly more than terminology is at stake. As the reader knows, the theory is that even in a non-communistic society each factor of production ultimately gets what its services are worth to the community.

The practical importance of this theory is obvious. It tends to show that economic forces are not only of the same nature, at all times and everywhere, but also that they lead, under a régime of free competition, to the same results as in a communistic society. Competition and private ownership of productive agents are held to bring about a distributive process quite similar to one regulated by a benevolent and intelligent ruler. This theory attributes, indeed, to the law of social value the functions of such a ruler. Society itself is called upon to sanction what is actually happening, and it is assumed that, apart from minor grievances, there is little to complain of.⁹

It is only, therefore, by reading into present society the implications of communism or of a control of economic life by a beneficent, omniscient despot, that the economic organicism analogy can have any real applicability.

Schumpeter summarizes his criticism of social value as follows: first, a methodological approach to economic theory based on individualism "leads to no misconception of economic phenomena"; second, "in a non-communistic state no reality corresponds to the concept of social values and social wants"; third, at the same time the concept is of considerable worth as indicative of the interdependence of individuals living in society, and as applied to the study of communism; fourth, "no conclusion as to the justification of the competitive régime can be drawn from this theory"; and, finally, "the present way of testing economic phenomena emerges justified out of our discussion."¹⁰

In the light of the analyses of previous chapters, we may well be skeptical regarding the last of these conclusions; but with respect to the rest, especially in view of the broader criticism of organicism analogies already surveyed, we can hardly be otherwise than in fairly general accord except to point out: that the concept "social" need not be defined (as economic organicism defines it) in terms of

⁹ *Ibid.*, pp. 222-225.

¹⁰ *Ibid.*, pp. 231-232.

"organically related," that in terms of "interaction" it is not necessarily open to the criticisms already advanced, and that as a matter of fact the extreme individualism of classical economic theory seems to have originated the very difficulties which organicism merely serves to perpetuate.

SECTION 79. UNSEEN HAND, NATURAL LAW, AND LAISSEZ FAIRE MISCONCEPTIONS: DAVENPORT

Davenport, writing at about the same time as Schumpeter, likewise stresses amelioristic misconceptions, but couches his criticism more broadly to indicate "the derivation of certain central doctrines in current economic theory" which, in his opinion, converge to make up "a great group or congeries of concurring errors," in which the organicistic point of view of social harmonies is simply the latest rationalizing effort.¹¹

After tracing in a preliminary way the history of the distinction between productive and unproductive labor, originating in cameraistic and mercantilistic doctrine and continuing through physiocratic and classical thought, with its emphasis upon the tangible and material in wealth to the exclusion of the intangible and immaterial, as Veblen also points out, Davenport takes up three main influences out of the past which he holds responsible for the continuing misconceptions regarding productivity, for the current beneficent optimism, and for the confusion between the organicistic and competitive points of view. These three historical influences he designates as a belief in the guidance of an Unseen Hand, in the justice of Natural Law, and in the righteousness of Laissez Faire.

Of the first of these, he says:

There are other bases of optimism, doubtless, but the readiest is religious faith. Seen in the large and in ultimate bearings, things must be going well with the world; else what can God be about? It is given to none of us to thwart the will of the Creator of all of us. Whatever we do we must perforce be working out the great program, treading the wine from His presses, milling out the foreordained

¹¹ Davenport, "Social Productivity versus Private Acquisition," *Quarterly Journal of Economics*, Nov., 1910, pp. 96-118. Cf., also, his "Cost and Its Significance," pp. 724-752, and *Value and Distribution*.

grist.... This much granted,—and it is not much to grant for the truly religious man or for the truly religious age,—it forthwith becomes incredible that the best interests of any of us can antagonize the interests of the others, if only it be possible for the individual to appreciate things in their ultimate meanings and their long effects. It follows, then, (as, for example, Bastiat argued) that all exchange is a mutual transfer of services. All trade is good; good from the point of view of the traders immediately concerned, and good for all the rest.... In general, surely, private gain must accord with public welfare. Consumption must take place by right of a preceding production. Private gain must trace back to social contribution. Capital must be such by furtherance of social product. Private income connotes a socially earned income. Distribution is solely and exclusively a division of a joint product among the coöperating productive factors. So runs the Great Plan.¹²

The second tendency Davenport regards as equally effective with the first. By means of their philosophy of Natural Law, the skeptics were able to follow the same line of reasoning as the devout. "It was the old faith unitarianized." And since this line of reasoning had been more subtly developed, it could not be so readily attacked. Furthermore, it was rational and it linked contemporary thought with the philosophy and jurisprudence of Greece and Rome. "But, best of all, it recognized and proclaimed a great stream of righteous tendency and great reservoirs of compelling force making for the good. God or no God, there was—and still is—a world of law wherein truth is immortal: Thus the right is destined to ultimate triumph; and progress reigns; and things essentially improve by their own inevitable unfolding; and the soul of things is just. Evolution is thereby the last word of scientific faith, and the ameliorative trend a popular certitude."¹³

With Laissez Faire, the third tendency, Davenport has somewhat more patience, feeling that its ascendancy served a better incidental purpose than did the other two, although the main result was virtually the same:

The economists of the first half of the 19th century were engaged in the study of societies emerging from centuries of kingship, of government by classes, of stupid and unjust legislation. It was clear enough

¹² "Social Productivity versus Private Acquisition," pp. 106-108.

¹³ *Ibid.*, p. 108.

that the progress of society lay in the breaking down of legal barriers and limitations, in the sweeping away of the privileges of caste and class, and in the development of popular institutions under the form of local and individual initiative. . . . The benefits of increased freedom argued for the wider abolition of regulation, and the régime of liberty came to stand as the ideal toward which civilization seemed to tend. . . . In the full flood of hope, economists argued learnedly that the good of each is always and inevitably bound up with the good of all; that in the marvelous divine order of things, selfishness of motive works out in altruism of results; that social ill-adjustments are due to too little liberty, too much meddling, or to ill-informed estimates by the individual of his own interests.¹⁴

In the light of these preconceptions, Davenport finds that economic theory could not help but be what it is. Guided by an all-embracing Beneficent Plan, a just Natural Law, or a righteous *Laissez Faire*, economic thought could take no other form than that of regarding competition as "voluntary coöperation," capital as always concrete and serviceable, income as distributive shares for "social service performed," distribution as "part and parcel of the productive process" and as "justified by it," gainful occupations as socially productive since otherwise they "could not normally be privately gainful," and the proper point of view for the study of economic phenomena as the organicistic point of view: "All these are the concepts and categories and doctrines of current economics in general. They are the common property of the classical and of the modern. This equipment of terms and theories and presuppositions is the common possession of economic thought in the large—not of this school or the other, not of ancient or of modern, not of cost doctrinaires or of utility doctrinaires, but of the genus economist in general."¹⁵

This picture, Davenport continues, is very far from the reality:

The truth is that the essential nature of capital is not to be found in its significance as a category of machines and tools and appliances. . . . Nor is the test in the materiality of the product. . . . Nor is the line of distinction to be sought by reference to the wholesomeness or to the social services of the product. . . .

Economic productivity is not a matter of piety or merit or deserving, but only of commanding a price. Actors, teachers, preachers,

¹⁴ *Ibid.*, pp. 109-110.

¹⁵ *Ibid.*, pp. 110-111.

lawyers, prostitutes, all do things that men are content to pay for. So wages may be earned by indicting libels against a rival candidate, or by setting fire to a competitor's refinery, or by sinking splices. The test of economic productivity in a competitive society is the fact of private gain, irrespective of any ethical criteria and unconcerned with any social accountancy.... Likewise are these tests equally inappropriate for the capital question. If whiskey is wealth, distilleries are capital items. If Peruna is wealth, the kettle in which it is brewed must be accepted as capital. Then so is the house rented as a dive; and if the house is productive and is therefore capital, so, also, must the inmates be producers according to their kind. The test of social welfare is invalid to stamp as unproductive any form of wealth or any kind of labor.... Always and everywhere, in the competitive régime, the test of productivity is competitive gain. Whatever wealth serves the acquisitive end is capital. Profits are merely one form of personal pecuniary intaking from personal pecuniary activity. Lobbyists, panders, and abortionists are producers: that they are paid is the adequate proof....

All this should be easy of acceptance, but is in fact far from easy. Social appraisals are prone to disturb and to confuse all purely realistic descriptions and theoretical analyses of the facts of actual business. What should be, gets mixed with what actually is. The case is as if the physician, because he ought to be sympathetic, were required to mix his hopes into his diagnoses and to write his sympathies into his prescriptions. One may condemn the poisoner's art, but this ought to argue that the chemist study poisons carefully rather than that he exclude them from his researches. Bacteriology would be of dubious service to human life if only beneficent bacteria were held worthy of attention. The zoölogist who could not see a snake would be a twin brother to the economist who can find capital only when there is social productivity, and who recognizes economic labor and economic wages only upon condition of social deserving.... Until Political Economy has achieved this much of wisdom, its doctrines can express nothing more than a pious and commendable aspiration; it will still be busy with picturing utopias or with analyzing hypotheses; on this basis it must continue to lack all touch with life, to make of itself a sheerfarce—albeit coming as near to tragedy as comedy often gets....

The truth, then, appears to be that the grotesque unreality of current economic doctrine finds its explanation in the 18th century background of philosophy, religion, law, and ethical theory, under which influences, and mostly determined by them, the system of economic thought first took shape.... Presuppositions of religion, of natural law, of philosophy, and of natural-rights ethics concurred to stamp the economic process as fundamentally rational and beneficent; to

obscure and even to deny the distinction between the social and the competitive, and to assume and even to assert the necessary parallelism between the private interest and the aggregate good. And the trend of economic development lent for a time strong support to this conviction. Thus the doctrine of the economic harmonies won a many-sided support. . . .

There is no need to carry the discussion further. The rest may well go without saying. Since the time that this social point of view got itself well established in economic thought and carried with it its equipment of concepts and terms and doctrines, all things indeed have remained well and harmonious—in the books. But only to the extent that economics has been inconsistent with itself, recurrently and sporadically falling away from the faith of the fathers, has it fallen into touch with life and with the things of business.¹⁶

We have quoted Davenport at length since it is hard to conceive of a more telling or picturesque portrayal than his of the false inferences constantly drawn from organismic, mechanistic, or other like analogies which serve mainly to keep alive certain theological, naturalistic, or amelioristic presuppositions handed down from the past. Such analogies are at best pseudoscientific in character and are usually misleading, unless employed with great caution. More recently the social-organism preconception has partially given way to such notions as the "superorganic" and the "social mind," which are, however, no better than social organicism. Certain phases of these newer tendencies have already been dealt with.¹⁷ Others will be taken up at the beginning of Part IV.

SECTION 79A. SOCIAL RELATIONS AND VALUES REALISTICALLY CONCEIVED

Much of the confusion in economic value theory is due to unrealistic views of the concepts "social" and "society." Nearly all human values, including the economic, are "social" values, except possibly a few biological ones which man shares with the brutes or those implied in the unrealistic metaphysical doctrine of solipsism.

¹⁶ *Ibid.*, pp. 111-118. In the passages quoted in the foregoing section, Davenport presents a telling indictment. And yet, in his "proportionality" or "ratio of equality" argument, developed in sec. 46 above, he takes classical preconceptions for granted and thus falls into precisely the same error of which he in these later passages so pointedly accuses other economists.

¹⁷ Cf. chap. vi, sec. 19, above; also, chap. xxii, n. 11, below.

Economic theory in its earlier stages, whether of the cost or utility variety, was based almost entirely on solipsistic individualism, and, with the classical espousal of "social" value through unrealistic analogies drawn from physical and biological science, the solipsism that had previously developed was retained in the new "organically related" framework.

In immediately preceding sections of the present volume, it has been indicated that "social" need not be construed to mean "organically related," and that any realistic view will include every type of human interaction, cultural interrelation, and institutional setting, whether ameliorative or detrimental. In earlier sections the ramifications of this realistic "social" view have also been indicated. Some of these are suggested in the following: natural, artificial, and other basic elements in culture, and significant approaches to the problems of social control and social progress (Section 9); the "genetic" approach, such as is comprehended in Sumner's investigation of folkways and mores and other elementary cultural forms and patterns, or as suggested in the anthropological studies by Boas and Malinowski of primitive social customs and groupings (Section 14); biogeological approaches, such as the investigations of Wissler and others of cultural sequences and interrelations and of the conditioning role of environment (Section 15); mathematico-statistical approaches to an understanding of complex social relations and institutions such as exist in contemporary society (Section 16); the historical approach and the approaches that combine the various techniques mentioned above (Sections 17 and 18); special social science procedures and concepts having to do with such problems as social causation and law and social evidence (Sections 19 and 20); summary and conclusions regarding various approaches to a constructive understanding of social relations (Section 22); criticism by Veblen, Mitchell, and Downey of normalistic, hedonistic, and rationalistic assumptions applied to economic relations, assumptions which omit cumulative change and institutional growth and decay in an analysis of social interaction (Sections 53 through 64); criticism of mechanistic and organicistic analogies applied to social study (Sections 71 through 75), especially Sorokin's analysis at the end which draws a distinction between valid and invalid organismic

inferences and suggests that the functional or organizational view of society is at least free from the analogical fallacies previously discussed.

From the functional or organizational point of view, "society" is neither a mechanism or organism on the one hand, nor yet, on the other hand, is it merely a collection of unrelated individuals. It is, rather, an organized "body" or "system" of functionally-related interacting members, bound together by pervasive social customs and persistent institutions; a "body" or "system," which, though it cannot be said to possess personality or have a mind or interests of its own or feel wants, may nevertheless be spoken of as composed of structures as well as functions, as possessing individuality, and also as a compound of its constituent parts (Section 86, below).

Such a broadly composite and interactive view of social relations and society comprehends not only those elements or tendencies which may legitimately be regarded as altruistic, serviceable, harmonious, ameliorative, or healthy. It comprehends, also, opposing elements or tendencies of an egoistic, detrimental, disruptive, retrogressive, or unhealthy character. Such a view does not sanction everything that is happening in society, as does "social" mechanism or "social" organicism. It merely suggests that, in any realistic approach, all elements and tendencies be comprehended, good and bad alike. Only thus can the detrimental be singled out in remedial legislation or other forms of social control, the constructive be given emphasis, and the path be cleared for the creation of additional social relations in the interests of welfare or progress. Such distinctions are not entirely clear even in the penetrating criticisms of Schumpeter and Davenport. The latter, for example, speaks of the "social" and the competitive as different processes, whereas the competitive is simply a part of the "social" when viewed as any form of "social interaction."

"Social" value naturally takes its significance from whatever meaning is assigned to "social relations" or "society." In the interactive view, all human values are social values, except possibly as suggested in the opening paragraph of this section. Virtually all human values are conditioned by interactive, customary, cultural,

collective, institutional social processes. And this is not the view taken by classical and neoclassical economists. At the same time, since society is not a person, has no mind, cannot feel wants, and has no interests of its own, the valuation process as such must apparently use human beings as its primary frame of reference, even though these are viewed as interrelated at every turn with other human beings. The importance of this distinction will become clearer in Part IV, where we shall examine values in detail.

CHAPTER XXI

SUMMARY AND CONCLUSIONS REGARDING COST AND UTILITY THEORY

WE MAY NOW PAUSE to sum up the considerations presented in preceding pages covering cost and utility theory and to bring this part of our discussion to a conclusion. That the development of classical thought has not been along scientific lines is doubtless by this time sufficiently obvious. The reasons for the direction it took are probably also sufficiently clear, their most general aspects being set forth in the criticisms of Davenport.

SECTION 80. THE RATIONALE OF THE CLASSICAL POINT OF VIEW

With respect to human relations, if it be regarded proper to assume a Beneficent Plan, a justice in Natural Law, or a righteousness in Laissez Faire, then all must certainly be "right with the world" and the real and the ideal are identical, at least "normally" or in the "long run." God, as an omnipotent, omnipresent, and omniscient Being, is in His Heaven, where He reigns in perfect Absolutism, watches benevolently over the world, and regulates its affairs for the best. On such an assumption, social theory was bound to be for the most part an effort at "rationalization," at making actual conditions appear just, beautiful, and good.

In economic affairs, it seemed equitable to Adam Smith and his followers that goods should exchange according to the quantity of labor embodied in them, according to the relative sacrifices entailed in their production, to the accompanying danger and irksomeness, to the time and waiting that must elapse before productive effort can materialize in finished goods. To the Austrians, it appeared fair that what the consumer pays for goods should measure their usefulness or utility to him. To the hedonists and utilitarians, it seemed proper that the pains or sacrifices of production should equal the pleasures or utilities of consumption. To the rationalists, it appeared

reasonable that man should be constantly adding utilities and subtracting disutilities to make sure that the Heavenly Balance was being maintained, though it apparently did not occur to them that they were thereby bringing into question the Divine Bookkeeping, which had previously been assumed to be perfect. In fact, an improvement on the Heavenly Plan was already being proposed, namely, the maximizing of satisfactions and the minimizing of costs, in place of an equilibrated counterpoise between them, surpluses of "utility" rather than a *quid pro quo*. To the mechanists, it seemed fitting that natural laws of a physical nature should be the ones to maintain the balance between production and consumption or, if necessary, to bring the social machine back to its normal "equilibrium of forces." To the organicists, it appeared good and beautiful that society should be an organism, with each part contributing to the organic welfare of the whole according to its productivity, and receiving in return the precise equivalent of what it had created or needed, overlooking the fact that production and need are, in actual life, far from being identical.

SECTION 81. ITS SHORTCOMINGS EPITOMIZED

This "making the wish father to the thought" is, as has been indicated, not a scientific procedure. So long as astronomers, for instance, assumed that heavenly bodies were "perfect" and without "blemish" and that they perforce had to travel in circles, there could be no scientific foundation for their discipline. It took Galileo and Kepler, among others, to destroy this misconception. In preceding pages we have endeavored to show to what an extent the classical economic tradition is built on false premises, has made use of illogical reasoning, and fails to accord with the facts of business and of general economic behavior. To epitomize the shortcomings:

First, with respect to the ideas of Smith and Ricardo and their followers, a number of inadequacies and fallacies have been brought to light.

(1) Adam Smith's assumed "early and rude" society, in which embodied labor allegedly measured exchange value or price, has been found to be at complete variance with the anthropological facts. Under primitive conditions, forced exchanges (as well as free), pred-

atory power, monopoly and tribute, apparently in large part set the prices of goods which more civilized descendants inherited and accepted as customary.¹

(2) The "alternative" dogma, by means of which it was sought to make the erroneously assumed embodied-labor measure synonymous with commanded labor and commanded money in modern society, has, in addition, been found to be fallacious.²

(3) All attempts to reduce labor and waiting to a homogeneous common unit of subjective cost in terms of human sacrifice, tediousness, effort, and the like, have proved unavailing. The only apparent results have been illusory ones, as in subjective and money cost confusions, again by way of the "alternative" sophistry.³

(4) Scarcity and monopoly conditions, rather than a supposed freedom in competition and normality in production, have been observed to be the rule in modern industry.⁴

(5) Besides the admission of qualitative nonhomogeneity in current "units" of labor and waiting, long-run qualitative differences also have to be conceded to explain increasing efficiency or decreasing unit costs from generation to generation. Original costs are thus seen to be increasingly at variance with reproductive or "commanded" costs.⁵

(6) A realistic comparison of consumption with production factors has brought to light an ever-mounting surplus under modern conditions and, with respect to the setting of price, has emphasized the importance of consumers' ability to pay as against producers' costs.⁶ Hence customary price, inherited from predatory forebears,

¹ Cf. Smith, *Wealth of Nations* (4th ed.), p. 51; Myres, "The Beginnings of Science," in Marvin's *Science and Civilization*, pp. 10-12.

² Cf. chaps. vii and ix, above.

³ Cf. Edward S. Mason, "The Doctrine of Comparative Cost," pp. 65-67, 71-79, 92; Macvane, "The Austrian Theory of Value," pp. 25-26, and "Marginal Utility and Value," p. 258; Cairnes, *Some Leading Principles of Political Economy*, p. 60.

⁴ Cf. Cairnes, *op. cit.*, pp. 72-75; Eugen von Böhm-Bawerk, "The Ultimate Standard of Value," p. 56; Macfarlane, *Value and Distribution*, pp. xx-xxi, 29; Clark and Giddings, *The Modern Distributive Process*, p. 20; Gardiner C. Means, *Industrial Prices and Their Relative Inflexibility*, Senate Document No. 13, 74th Congress, 1st Session (Washington, D. C., 1935). Cf., also, antitrust legislation in the United States.

⁵ Cf. Frederick von Wieser, "Theory of Value," p. 30; Macvane, "The Austrian Theory of Value," pp. 26-27.

⁶ Cf. Simon N. Patten, *Dynamic Economics*, pp. 14-15, 18-19, 25-26, 35-36.

and the power to meet with money payment the price that is habitually charged, emerge as major elements in price determination, while subjective cost, embodied labor, and sacrifice are seen to have no precise connection.

Second, with respect to the views of the Austrians, proposing utility as a substitute for subjective cost in price determination, additional difficulties have been encountered in connection with the major contentions that diminishing utility explains the downward slope of the demand curve and that price is fixed at the resultant margin.⁷

(7) It has been found that diminishing utility or desire is by no means a universal phenomenon in economic activity, that increasing utility is probably just as prevalent, and that a fairly steady utility occasioned by an habitual rate of consumption is even more widespread.⁸

(8) It has come to be appreciated that whatever fixes price settles the margin as well and that the whole demand schedule and not the marginal unit alone is involved.⁹

(9) It has been discovered, furthermore, that the negative slope of the demand curve can be accounted for in terms of unequal incomes, differing desires, and prudential expenditures in the light of fairly fixed budgetary allotments, which eliminates the need for continuing the generally-diminishing-utility fiction.¹⁰

(10) It must thus be concluded that "utility" cannot possibly determine market price, because the diminishing-utility and marginal assumptions are for the most part inapplicable, because the special "ratio-of-equality" argument is contrary to fact, and (in the light of studies based on customary price, pecuniary choice, and the bounties of nature in supplying utilities to free and economic goods alike) because there is no concomitant variation between utility or

⁷ Cf. Jacob Viner, "The Utility Concept in Value Theory and Its Critics," p. 370.

⁸ Cf. Harry E. Miller, "Utility Curves, Total Utility, and Consumer's Surplus," pp. 292-316.

⁹ Cf. Marshall, *Principles of Economics*, I, 592; Davenport, *The Economics of Enterprise*, p. 94. Regarding the significance of the margin concept, see Carlile, "The Language of Economics," pp. 435-447.

¹⁰ Cf. n. 14, below, and Davenport, *The Economics of Enterprise*, p. 97.

desire and price offered, must less between utility or desire and the price set by the market.¹¹

Third, with respect to the analyses of those who place utility shortcomings on the same plane with Austrian criticisms of cost theory and meet the Austrian attacks on their own ground, further inadequacies have appeared. It will be recalled that Green and Böhm-Bawerk, among others, opposed Macvane's analysis of subjective cost on the score that scarcity influences in production, which to them seemed to be the rule rather than the exception, were left out of account, and that no homogeneous common denominator for subjective costs could be found.¹² Using precisely similar arguments, it has been shown by such writers as Macfarlane and Persons that two additional criticisms of utility theory may be advanced.

(11) Utility theory is in part based upon the fallacious assumption of ideal competition among consumers just as subjective cost analysis is based upon the assumption of ideal competition among producers, when in fact there appear to be noncompeting groups and monopoly and scarcity conditions in the one field as in the other.¹³

(12) It is assumed that utilities are homogeneous and commensurable; as a matter of fact, due to inequalities of income and desires, neither in utility nor in disutility can homogeneous common units be postulated.¹⁴

Fourth, with respect to hedonistic, utilitarian, and rationalistic preconceptions, criticized by such writers as Veblen, Mitchell, and Downey, it has been pointed out that both utility and disutility

¹¹ *Idem*. For "ratio of equality" argument, see Davenport, *The Economics of Enterprise*, pp. 84, 92-93, 104, an example of the "alternative" dogma. Cf., also, Mitchell, "Bentham's Felicific Calculus," pp. 161-183; Hobson, *Work and Wealth*, p. 334, and his last chapter; Henry W. Stuart, "The Phases of the Economic Interest," in Dewey's *Creative Intelligence*, pp. 310-340.

¹² David I. Green, "Pain-Cost and Opportunity-Cost," pp. 218-229; Eugen von Böhm-Bawerk, "Macvane's Political Economy," pp. 331-339; Frederick von Wieser, *op. cit.*, pp. 24-52; Macvane, "The Austrian Theory of Value," pp. 12-41; Macvane, "Marginal Utility and Value," pp. 255-285; Macvane, "Böhm-Bawerk on Value and Wages," pp. 24-43.

¹³ Cf. Macfarlane, *op. cit.*, pp. 42-53.

¹⁴ Cf. Charles E. Persons, "Marginal Utility and Marginal Disutility as Ultimate Standards of Value," pp. 547-578.

arguments suffer from even more fundamental difficulties and shortcomings than those already enumerated.¹⁵

(13) Cost and utility theories both assume an all-pervasive rationality in human behavior which does not as a matter of fact exist except in a very narrow economic sphere—mainly in distribution, to some extent in production, and almost not at all in consumption.¹⁶

(14) This supposed superrationality is based upon a hedonistic psychology, long since exploded, which in its modern guise substitutes utility-disutility for pleasure-pain, with similar connotations and sophistries. Nor can hedonistic and utilitarian implications be avoided either by changing the phraseology or by denying that hedonism is basic to the contentions, for such disavowal deprives utility analysis of virtually all its content and significance.¹⁷

(15) The preconceptions indicated in utility theory, that is, "normality," "statics," "perfect competition," "specific productivity," "consumer's and producer's surpluses," "zones of indifference," and the like, have upon analysis been found to be foreign to reality and out of harmony with major economic tendencies based upon habit and instinct and upon institutional growth and decay.¹⁸

(16) Even in the narrow sphere in which the utility arguments might conceivably apply (under "normal" conditions of perfect competition among superrational economic men), artificial abstractions (utility and disutility) are substituted for the actual pecuniary concepts (profits and losses) which constitute the chief motivating forces of the present economic system.¹⁹

(17) Running through the whole utility-disutility doctrine, as illustrated in the dogma of unfailing mutual gain in exchange, is the false presumption of a refined system of swapping goods for goods, whereas modern production is for the market and in terms of

¹⁵ Cf. Veblen, "Professor Clark's Economics," pp. 147-195, and "The Limitations of Marginal Utility," pp. 620-636; Mitchell, "The Rationality of Economic Activity," pp. 97-113, 197-216; Downey, "The Futility of Marginal Utility," pp. 253-268.

¹⁶ Mitchell, "The Rationality of Economic Activity."

¹⁷ Downey, *op. cit.*

¹⁸ Veblen, *op. cit.*
¹⁹ Cf. Veblen, "The Limitations of Marginal Utility," pp. 632-635; Mitchell, "The Rationality of Economic Activity," pp. 206-216.

the purchasing power secured. It is the utilization of this purchasing power, to maintain an accustomed or desirable standard of living, which concerns people in present-day economic society, not a long-since-departed system of swapping or barter.²⁰

Fifth, with respect to the mechanists and the organicists and their attempts to apply to social study analogies drawn from the physical and biological sciences without proper scrutiny as to limitations, resultant generalizations have been found to be inadequate and misleading both because the reasoning contains logical fallacies and because the conclusions are not borne out by the facts.²¹ Regarding economic organicistic systems in particular, we are here brought back to the further criticisms of Schumpeter and Davenport.

(18) Social utility and social disutility are meaningless concepts if they imply that society is a preordained mechanism or an organism which can feel wants or have desires of its own.²²

(19) These concepts presumably have a certain limited significance, especially in the study of communism; but, as applied to modern capitalistic society, they make for an unwarranted optimism, leave the impression that each individual actually gets what he is worth to society, and sanction the perpetuation of existing inequities.²³

(20) Behind such rationalizations, as applied to social theory, lie the three eighteenth-century beliefs referred to at the end of the last chapter, beliefs in the working of a Heavenly Plan, in a justice in Natural Law, and in the righteousness of *Laissez Faire*, all of which are quite generally belied by the facts of actual business behavior.²⁴

Sixth, and finally, with respect to the general use of the term "utility," in its relation to basic concepts of human nature, and the

²⁰ Cf. Macvane, "Marginal Utility and Value," pp. 271-273; John M. Clark, "The Socializing of Economics," in *The Trend of Economics*, ed. Tugwell, p. 82; John M. Clark, *Social Control of Business*, pp. 6-7, 37-39, 132-138.

²¹ Cf. Sorokin, *Contemporary Sociological Theories*, pp. 3-37, 195-213; also, pp. 13-15, above.

²² Schumpeter, "On the Concept of Social Value," pp. 214-217.

²³ *Ibid.*, pp. 217-232. Cf., also, Schumpeter's *Das Wesen und Hauptinhalt der Theoretischen Nationalökonomie*.

²⁴ Cf. Davenport, "Social Productivity versus Private Acquisition," pp. 96-118.

term "social utility," as synonymous with public welfare, we may now, to make the picture complete, revert to analyses undertaken earlier in this volume, bearing upon the writings of Knight and Hobson.²⁵

(21) Quite the contrary to providing a clear-cut explanation, the concept of economic utility is as a rule vaguely defined, as both subjective means and objective end, as wholly quantitative and yet in some way serving as a qualitative norm, and in such broad terms that "satisfaction," "pleasure," "life," and "money" seem to fit it equally well. Such ambiguities and confusions have no place in scientific discourse.²⁶

(22) Especially in confusing economic with ethical and social considerations is the "utility" concept misleading, since in all classical and marginal theory the term is regarded as synonymous with consumption activities (and its correlative "disutility" with production activities), while in "social utility" other and contradictory implications are added. As a matter of fact, from the point of view of public welfare, not all consumption carries "human utility," nor all production "human disutility." Misleading advertising and the craze for prestige result in harmful consumption; the scholar and the artist usually find it pleasurable and satisfying to produce.²⁷

(23) The dictum of maximizing "utility" and minimizing "disutility" would in fact seem to have meaning only in terms of human welfare. To maximize "consumption" and to minimize "production" hardly make sense, and yet this is the only logical inference which classical and neoclassical economic theory allows.²⁸

(24) Measured in terms of basic concepts, "utility" and "disutility" are thus not rigorously conceived, are not logically adequate, do not reflect human-nature fundamentals, and are not structurally and genetically related to basic psychobiological categories.²⁹

²⁵ Cf. chap. vi, sec. 21, above.

²⁶ Cf. Frank Knight, "Relation of Utility Theory to Economic Method in the Work of William Stanley Jevons and Others," in Rice's *Methods in Social Science*, pp. 59-69; also, pp. 76-81, above.

²⁷ Cf. Z. Clark Dickinson, "The Psychological Approach in Economics, Represented in the work of J. A. Hobson," in Rice's *Methods in Social Science*, pp. 489-501; David I. Green, "Pain-Cost and Opportunity-Cost," p. 219; pp. 80-83, above.

²⁸ See p. 80, above.

²⁹ See pp. 4-6, 71, 72, 82, above.

(25) Pragmatically, the actual market situation is left untouched by utility-disutility theory; problems of price determination remain unsolved; the generalities of the superficial demand-supply relationship are not penetrated; and questions of habitual behavior and institutional development are nowhere taken up. In brief, this whole classical and neoclassical system of doctrine is akin to medieval scholasticism, helpless in clarifying practical problems and leading only to confusion and sophistry.

Some of the real questions that have not been answered by such theory are the following: What is the history of customary price with respect to various key commodities? How far have habit and consumer ability to pay prevented price from being lowered toward the cost-of-production minimum? In what ways have predatory price-fixing and competition progressed from the stage of "nature red in tooth and claw"? To what extent and in what directions has competition thus far been constantly frustrated by scarcity and monopoly conditions both in production and consumption? What has been the effect of fluctuations in purchasing power upon the maintenance of given standards of living among different classes of society, among businessmen, property owners, professional men, salaried white-collar workers, unionized skilled laborers, unskilled workers? To what extent are existing standards of living the effect of misleading advertising, high-pressure salesmanship, and the aping of luxurious display, and to what extent do they really reflect "human utility"? These are but a few of the many realistic questions, unanswered by traditional economic theory, which will readily suggest themselves in the light of foregoing considerations.

SECTION 82. A MORE MODERN POINT OF VIEW

To some minds it will still seem axiomatic that a Beneficent Plan, carried out by an Absolute Deistic Being dealing out earthly Perfection in truth, beauty, and goodness, must be in operation; and that anyone questioning such an assumption lacks faith and salvation. Fortunately, however, there has been in the past century a marked change in religious belief and in putative ways to salvation. It is even possible today to be devoutly religious and still disavow the conception of Deity at the basis of classical preconceptions.

Anyone, in fact, who is consistently religious and at the same time scientific in a post-Darwinian sense must take a radically different view. For him, Evolution has been substituted for Perfection; Relativity in truth, beauty, and goodness, for Absolutism; Becoming for Being; Immanence for Transcendence; and experiment and control in human affairs for "letting things take their course," which latter view has usually meant letting an unscrupulous minority take advantage of the pious majority. Such a theistic conception is not entirely new. It has been struggling for place, especially since the words of the Apostle Paul that "in Him we live and move and have our being" gave man a surer claim upon divine inheritance and an inkling of his destiny to help fashion human affairs more in accord with the heart's desire. After the conservative-liberal controversies following 1860, the more modern and scientific point of view has taken ever firmer hold until today, as one expression of it in the United States, there is projected a new program of planned democratic control in human affairs, to displace predatory exploitation by small minorities.

That modern business competition is far from being "free," either on the side of demand or supply, is finally coming to be more fully recognized. Competition in matters economic there always has been and doubtless always will be. But competition was of a decidedly predatory nature until modern social legislation (representing the forces of community co-operation) stepped in to "free" it somewhat from cave-man influences. Prize fighting was once more predatory than it is today. Marquess of Queensberry rules have helped to make for a more equitable competition there. In a similar sense, co-operative action in setting the rules of the economic game lifts competition to a higher plane of freer and more equitable operation. In the economic and social revolution through which the United States now appears to be passing, a laudable effort is being made to formulate a still fairer code of business rules.³⁰

The new emphasis upon human welfare, as against the old emphasis

³⁰ Cf. Edward H. Chamberlin, *The Theory of Monopolistic Competition* (Cambridge, 1933); Joan Robinson, *The Economics of Imperfect Competition* (New York, 1933); C. J. Ratzlaff, *The Theory of Free Competition* (Philadelphia, 1936); Arthur R. Burns, *The Decline of Competition* (New York, 1936); also, the bibliographies of Ratzlaff and Burns at the end of their works.

upon the inviolability of vested property holdings, is wholly in line with the dissipation of the misapprehension that utility, cost, and value have economic meaning only in terms of consumption, production, and exchange practices, whatever their character. When deliberate psychological appraisals, which the marginalists erroneously assume to have been constantly made in the past, actually come to be undertaken in any discerning manner, it is found that the real and the ideal are often poles apart and that a normative standard in terms of public benefit is urgently needed to render reasonably significant, terms that otherwise make economic nonsense.

The focusing of attention upon the achievement and maintenance of a fairly invariable purchasing power and a reasonable standard of living for the different groups of a society, rather than upon the encouragement of further wild orgies of frenzied speculation under the guise of business prosperity booms, is another illustration of the more modern point of view.³¹ It inferentially repudiates the anachronistic assumption that we still live in a barter economy. As a matter of fact, even businessmen are not interested in an exchange of goods for goods, but rather in securing a net profit on their transactions; and in their broader role of human beings, they are still less concerned with mechanical swapping operations. They and most other people are interested in exchanging their services (given with a maximum of enjoyable effort) for sufficient purchasing power to maintain what they regard as a fair standard of living. The effort is often too painful and the standard of living attained not always the desirable one. At any rate, these are the exchanges in which human beings are primarily interested—not in a crude, long-since-superseded barter of goods for goods.

SECTION 83. CAN NEOCLASSICISM SURVIVE?

Such is the inertia of long-standing social preconceptions, authoritatively promulgated, that in economic thinking, where the classical ideas have taken firmest hold, utility-disutility dogmas are still widely followed, when what we actually need are scientifically drawn hypotheses about value (based upon an up-to-date knowl-

³¹ Cf. Harold G. Moulton, *The Formation of Capital* (Washington, D. C., 1935); also, chap. xxix, below.

edge of human nature) and about economic institutions (based upon realistic studies of their actual functioning), such as are already being formulated by a few private commissions, bureaus, and institutes and latterly by the federal government itself.³² As it is, most economists appear to remain content with marginalism and its corollaries, even though some of them recognize that other ways of economic thinking have taken form.

The many die-hards among the classicists and neoclassicists, though perhaps admitting certain logical and psychological shortcomings in cost and utility theory, continue to insist that in the form of "marginalism" it nevertheless enjoys an indispensable probity and that it will not and should not totally disappear. It is presumed to possess "essential integrity," to bear a considerable "resemblance to the facts," and to be assured permanence through "its pedagogical compactness, its logical coherence and availability, and its large measure of pragmatic truth."³³

It is one of the contentions of the present volume, which, it is ventured, has by this time been fairly well substantiated, that this "older economics" possesses "integrity" and is "logical" only on the score of pseudoscientific assumptions and fallacious preconceptions, that for the most part it bears no resemblance at all to the facts of modern economic life, and that its very availability and pedagogical compactness are a snare rather than a help in the training of future economists, except possibly by way of an object lesson in fallacious dialectic.³⁴ Should this appraisal be correct, even though certain

³² Cf. Perry, *General Theory of Value*; also, the research activities of the National Bureau of Economic Research, Inc., New York City; The Brookings Institution, Washington, D. C.; and The Twentieth Century Fund, New York City.

³³ John M. Clark, "Recent Developments in Economics," in Edwin C. Hayes's *Recent Developments in the Social Sciences* (Philadelphia, 1927), pp. 253, 305-306.

³⁴ For general surveys of economic doctrines, besides works already cited in previous chapters, see: Jérôme A. Blanqui, *Histoire de l'Économie Politique en Europe* (5th ed.; Paris, 1882) [also translation from the 4th French ed. by Emily J. Leonard (New York, 1880)]; Edwin Cannan, *A Review of Economic Theory* (London, 1929); Luigi Cossa, *Introduction to the Study of Political Economy*, tr. Louis Dyer and rev. by the author (London, 1893); Karl Diehl, *Theoretische Nationalökonomie* (3 vols., 2d ed.; Jena 1922-27); Francesco Ferrara, *Esame Storicocritico di Economisti e Dottrine Economiche del Secolo xviii e prima Metà del xix* (2 vols., in 4 parts; Torino, 1889-91); Charles Gide and Charles Rist, *Histoire des Doctrines Économiques depuis les Physiocrates jusqu'à nos Jours* (5th ed.; Paris, 1926); also, translation by Robert Richards from 2d French

historical achievements in economic value analysis may be retained in their proper setting and some of them utilized in the projection

ed. (London, 1915); John Maynard Keynes, *The General Theory of Employment, Interest, and Money* (New York, 1936); Paul Mombert, *Geschichte der Nationalökonomie* (Jena, 1927); Lionel C. Robbins, *An Essay on the Nature and Significance of Economic Science* (London, 1932); Theo Suranyi-Unger, *Economics in the Twentieth Century; the History of Its International Development*, tr. Noel D. Moulton (New York, 1931); Knut Wicksell, *Lectures in Political Economy* (2 vols.; New York, 1934), Vol. I.

For further references to neoclassical, historical, romantic, socialistic, mathematical, and institutional points of view in economics, see:

John A. Hobson, "Neo-Classical Economics in Britain," *Political Science Quarterly*, Sept., 1925, pp. 337-383; John Neville Keynes, *The Scope and Method of Political Economy* (3d ed. rev.; London, 1904); Pigou (ed.), *Memorials of Alfred Marshall*; Henry C. Simons, *A Positive Program for Laissez Faire* (Chicago, 1935); Young, "Pigou's Wealth and Welfare," pp. 672-686.

Alfred Amonn, *Objekt und Grundbegriffe der Theoretischen Nationalökonomie* (2d ed.; Leipzig, 1926); Margret Hüter, *Die Methodologie der Wirtschaftswissenschaft bei Roscher und Kries* (Jena, 1928); Feitel Lifschitz, *Die Historische Schule der Wirtschaftswissenschaft* (Berne, 1914); Bernhard Pfister, *Die Entwicklung zum Idealtypus. Eine Methodologische Untersuchung über das Verhältnis von Theorie und Geschichte bei Menger, Schmoller und Max Weber* (Tübingen, 1928).

Jakob Baxa, *Einführung in die Romantische Staatswissenschaft* (Jena, 1923); Werner Sombart, *Die Drei Nationalökonomen* (Munich, 1930).

Karl Kautsky, *The Economic Doctrines of Karl Marx*, tr. from the German by Stenning (London, 1925); Alexander D. Lindsay, *Karl Marx's Capital* (London, 1925); Karl Marx, *Capital*, tr. from the 4th German ed. by Eden and Cedar Paul (New York, 1929); Vladimiir G. Simkhovitch, *Marxism versus Socialism* (3d ed.; New York, 1923).

Arthur L. Bowley, *The Mathematical Groundwork of Economics* (Oxford, 1924); Otto Kühne, *Die Mathematische Schule in der Nationalökonomie* (Berlin, 1928); Jacques Moret, *L'Emploi des Mathématiques en Économie Politique* (Paris, 1915); Wladyslau Zawadzki, *Les Mathématiques Appliquées à l'Économie Politique* (Paris, 1914).

Clarence E. Ayres, "The Function and Problems of Economic Theory," *Journal of Political Economy*, Jan., 1918, pp. 69-90; Eveline M. Burns, "Does Institutionalism Complement or Compete with 'Orthodox Economics'?" *American Economic Review*, March, 1931, pp. 80-87; J. M. Clark, "Economic Theory in an Era of Readjustment," and Hamilton, "The Institutional Approach to Economic Theory," with a discussion of Clark's and Hamilton's papers, *American Economic Review Supplement*, March, 1919, pp. 280-290, 309-324; Lionel D. Edie, "Some Positive Contributions of the Institutional Concept," *Quarterly Journal of Economics*, May, 1927, pp. 405-440; Hermann Kroener, *John R. Commons; seine Wirtschaftstheoretische Grundauffassung und ihre Bedeutung* (Jena, 1930); Wesley C. Mitchell, "Commons on the Legal Foundations of Capitalism," *American Economic Review*, June, 1924, pp. 240-253; Talcott Parsons, "'Capitalism' in Recent German Literature: Sombart and Weber," *Journal of Political Economy*, Dec., 1928, pp. 641-661; Harvey W. Peck, *Economic Thought and Its Institutional Background* (New York, 1935); Veblen, *The Place of Science in Modern Civilization and Other Essays*.

of more adequate hypotheses, the classical structure as such, together with its neoclassical refinements, must, we submit, be discarded in its entirety if a truly scientific approach to the problems of modern economic society is to be achieved.

PART IV
BROADER VALUE CONCEPTS

CHAPTER XXII

CONTINUING CONFUSION IN ECONOMIC VALUE THEORY

AS A FURTHER indication of the importance for constructive economic theory of developing value concepts which are broader than ideas of cost or utility, and as an additional illustration of the confusion which continues to exist where deeper psychological, sociological, and philosophical elements have not been sufficiently analyzed, attention may be instructively directed to the 1915 debate between two prominent economists, B. M. Anderson, Jr., and J. M. Clark.¹ Possibly the most interesting fact about this exchange of views is the agreement by both men that a deeper analysis than economists had up to that time undertaken is necessary if conflicting ideas in economic theory are ever to be reconciled.² Clark thus expresses this point of view at the beginning of the debate:

The concept of value is the core of economic thinking, and modern economics is older than American independence, yet the builders of the science are still disputing what value is, or how it shall be conceived. This is altogether necessary and proper, for the concept is by no means in final shape. Indeed, one may hazard the prediction that progress in economic philosophy in the next half century will hinge on the adoption of new and enlarged meanings for its fundamental terms. Only so can we do for the twentieth century as much as our classical forefathers did for their time. It is a question how long nineteenth century formulations will stand the strain of twentieth century development.³

¹ John M. Clark, "The Concept of Value," Benjamin M. Anderson, Jr., "The Concept of Value Further Considered," and John M. Clark, "A Rejoinder," three articles in the *Quarterly Journal of Economics*, Aug., 1915, pp. 663-723.

² Anderson's prize essay, written four years before the debate, made an attempt at such a deeper study. Cf. Benjamin M. Anderson, Jr., *Social Value*, p. 10.

³ "The Concept of Value," p. 663.

SECTION 84. EXCHANGE RATIOS AND RATES, ABSOLUTE
AND RELATIVE VALUES

The debate in question grew out of Anderson's essay, published four years before, in which, among other things, a number of currently held value concepts are severely challenged. The following excerpts from the essay indicate certain of these criticisms:

I conclude that the value of a thing is a quantity, and not a ratio. It is a definite magnitude, and not a mere relation....

Value is more than the total utility of a good, or the marginal utility of a good, to an individual, and it is more than a ratio of exchange. Economic value is a species of the *genus* value, which runs through other social sciences, as ethics, aesthetics, jurisprudence, etc. Sometimes these various values are so intermingled that it is impossible to tell them apart....

For the experience, and at the time of the experience, a value is a *quality* of the object valued. Values are "tertiary qualities" (to borrow an expression from Professor Santayana's *Life of Reason*), just as real and objective as the "primary" and "secondary" qualities....

Value is a quantity, socially valid: value is not logically dependent upon exchange, but is logically antecedent to exchange; a circle in reasoning is involved if the relative conception of value be treated as ultimate; the Austrian theory, and the cost theory, and combinations of the two, all fail alike to lead us to an ultimate quantity of value; they fall into another circle, that of explaining value in terms of value, if they attempt to do so; the defect is in the highly abstract nature of the determinants of value which these theories start from.⁴

In 1911 and in 1915, as now, the idea of value as a "ratio of exchange" was widely held among economists, as was also the belief in relative values and in the primary importance of exchange in determining economic value. It was natural, therefore, that Anderson's challenge to established concepts should provoke a defensive protest.

We have just quoted from J. M. Clark to indicate his concurrence in acknowledging, as Anderson does, the need for wider value concepts. In addressing himself directly to Anderson's challenge, Clark contends that the substitution of the word "rate" for "ratio"

⁴ *Social Value*, pp. 27, 93, 96, 197.

of exchange would circumvent part of Anderson's criticism and that the latter's insistence upon value as a quantitative thing existing prior to exchange is akin to the chicken versus the egg argument, that is, the question of priority appears to him as meaningless.⁵

With these contentions Anderson continues to disagree and, in reply, proceeds to strengthen the case against the use of such terms as "rate of exchange," "ratio of exchange," and the like, if treated as ultimates, and to champion the idea that values exist apart from and antecedent to exchange. In these connections he writes further:

In answer to the question as to what practical difference is made whether the relative exchange concept, or the conception of value as absolute, prior to exchange, be held, the following points are submitted. (1) Economic value is a wider concept than exchange, and would hold, for example, in a socialist economy. Value is a wider concept than economic value. In the value concept is a useful unifying principle for all the social sciences. (2) Value and exchangeability are different notions, and do not vary together. Hence the distinction between two viewpoints, the timeless equilibrium assumed by abstract price theory, and the notion of a causal process in price determination, requiring time, becomes important. Normally, values are the causes of prices, and change first. (3) Many prices are controlled, in greater or less degree, by non-economic values.⁶

Despite his apparent disagreement otherwise, Clark in rebutting these contentions finds himself in accord on the following points:

We are agreed that economists must deal with quantities and qualities of which actual market prices are not the only measure, and, I would add, some of which command no market price at all under present conditions; altho with changes in law and custom they might perhaps come to command one. We are agreed that measures of value which may be less exact than those of the market are also much more fundamental. . . .

In summary, the great issue seems to be between standards of value which accept the exchange outcome as measuring the values of the goods exchanged, however they may preface this with studies of the conflicting social forces which are at work, and, on the other hand, standards of value which do not accept that measure as exact or final.⁷

⁵ As for qualitative vs. quantitative distinctions, see chap. xxiv, below.

⁶ "Concept of Value Further Considered," pp. 707-708.

⁷ "A Rejoinder," pp. 709-710, 723.

Previously Clark had written:

Is it possible that some day there will be economists who think of value not only as a quality, but as a quality which may be measured in ways that would conflict with the measure of the exchanges? Perhaps we shall be called on to distinguish between "social value" and "exchange value" as Wieser distinguished between "exchange value" and "natural value." If such a distinction is made, it will furnish a difference that will call loudly for settlement.⁸

That there is such a distinction between social-organism values and market values and that it is at this very moment crying "loudly for settlement," are among the important questions upon which the present volume is endeavoring to focus attention. These considerations have doubtless already been made fairly clear in preceding pages. What is important here is not to analyze further the Anderson-Clark debate, although its significance will become more fully apparent as we proceed, but rather to suggest something of the confusion that continues to exist in economic value theory and to indicate why the need for a broader analysis, which both Anderson and Clark recognize, continues to be urgent today.

SECTION 85. SHORTCOMINGS OF SUCH CONCEPTS: FAILURE TO ARRIVE AT FUNDAMENTALS

The real shortcoming of Anderson's position lies in none of the arguments just outlined but in the character of the deeper analysis which he undertakes. Despite his excellent criticism of existing abstractions and his constructive point of view, he makes the organismic analogy the basis of his reasoning and thus perpetuates ideas as bad as some of the dogmas he attacks, if not worse.

Regarding organismic fallacies, the criticisms previously presented in these pages apply with full force to Anderson's "social value," especially the criticisms by Schumpeter and Davenport.⁹ "Social" value, which Anderson espouses, is tarred with the same stick as are social marginal utility and social marginal cost, which he rejects. None of these has anything but "a vague, analogical meaning, if any at all," except in the senses already indicated.¹⁰ The fallacious

⁸ "The Concept of Value," p. 673.

⁹ Cf. chap. xx, above.

¹⁰ Anderson, *Social Value*, p. 9, and chap. xix, above; also, sec. 79A, above.

foundation upon which Anderson builds his theory may be further seen in the appraisal by Ralph B. Perry, a competent philosophical critic, of Anderson's analysis of the nature of society and of the "social mind."¹¹ It should be pointed out, particularly, that there is no such thing as a "psychical organism," such as Anderson hypothesizes. "Organism" is a biological term. An organism may have a mind, but a disembodied mind is unknown to our laboratories or museums. The organismic analogy *must* draw "social laws from biological laws." Anderson's attempt to evade this issue is in effect to deny the organismic fallacy and at the same time to employ it. Incidentally it is interesting to note that both the organismic and the mechanistic analogies, as applied to social relations, often amount to the same thing in the end. This Anderson in fact admits with respect to his theory: "The argument . . . may be put—though not so conveniently—in terms of the mechanical analogy, and the psychical processes treated, not as the action of a unitary, though differentiated, mind, but as a balancing and transformation of

¹¹ Cf. Anderson, *Social Value*, pp. 83-89; and Ralph B. Perry, "Economic Value and Moral Value," pp. 466-476; also, sec. 86, below. Perry's analysis of "social mind" is particularly striking and pertinent and is therefore quoted at length. Referring to various meanings that might be attached to the expression "social mind," he says:

"The fact is that the expression 'social mind,' and the various alternative expressions which are used as equivalents or variants of it, are scarcely fit to print in the context of exact discourse. This does not mean that there are no facts referred to by these expressions, but only that their use is so ill-defined that it is almost impossible to discover just *which* facts are referred to at any given time. A general discussion of the social or non-social character of economic value is utterly blind and unprofitable. Without in the least pretending to exhaust the senses of the term 'social,' I shall mention a few of the things that it sometimes means. To avoid needless controversy let us leave open the question as to whether mind is essentially behavior or self-consciousness. In the former case an individual mind would be a single reacting organism in the biological sense. In the latter case an individual mind would be a subject capable of introspection. Assuming that 'individual mind' may mean either of these things, we then have at least five things that may be meant by 'social mind.' First, it may mean simply a *plurality* of individual minds. In this sense population or any similar statistical conception which deals with numbers of individuals would be social. All other senses of sociality imply this fundamental sense. Second, it may mean *similarity* of individual minds. Where two or more minds are alike in any respect, we may speak of a type of mind, such as 'the human mind' or 'the American mind.' Such sociality of mind may be accidental or it may be due to some common cause, such as climate. Third, minds may *act jointly* on a common object, or so as to produce an effect that no single mind would be capable of producing alone. Thus

forces, and practically the same results for value theory will follow."¹² It is hardly necessary to repeat that the organicistic and mechanistic analogies have been found to be equally futile in providing basic concepts for a rigorous analysis of social relations. Whether society be treated as "a unitary, though differentiated mind" or as "a balancing and transformation of forces," the results are equally fallacious. Such treatment fails to penetrate to value fundamentals.

SECTION 86. PERRY'S ANALYSIS OF SOCIAL VALUE

While conceding, in a later and much more exhaustive work than the one referred to on the preceding page, that "some if not all value is in some sense a function of society or of social relations," Perry points out with emphasis that this does not necessarily imply agreement with Durkheim that society is a "collective personality" or a "subject *sui generis*" or with Espinas that it is "a living being like the individual." He then takes up various commonly held beliefs regarding the nature of society, particularly the social substance,

the pyramids of Egypt, or the military power of Germany, is a social phenomenon. Fourth, sociality of mind may mean the *interaction* of individual minds. This may be of radically different sorts. Single minds may act on one another as in 'personal influence'; or one mind on many minds as in leadership; or many minds on one mind as in custom. The influence itself may be communicated directly, or by intermediate agencies that are not themselves mental, as in heredity or art. Interaction of mind may result in sociality of the second or third kinds, as when imitation causes uniformity or sympathy leads to joint enterprises. . . . Fifthly, and lastly, it is possible to suppose that individual minds are integrated in a greater mind which may feel or think or behave in a way of its own. In saying 'it is possible to suppose,' I have perhaps put the matter too strongly. Not only is there no empirical evidence for such a mind; but it is doubtful if there is even a clear definition of what it would be if there were one. There is no such super-organism even among the most complete zoological collections. It would contradict all known anatomical and physiological laws. Nor is it clear that any such unity is possible in terms of self-consciousness, in view of the peculiar individuality which is supposed to attach to the data of introspection. The 'over-soul' theory has few friends among sociologists and economists; and yet it is the only sense of sociality which definitely distinguishes society from some kind of a relation of individual minds.

"I conclude, therefore, that the supposition of a sort of qualitative coating upon each economic good, or a light cast by the radiation of a social mind, is both mythical and gratuitous. It is important to recognize that economic value is a function of interacting and reacting minds; and that it reflects all the complex agencies that operate in the inter-mental world. But to invoke a unitary social mind as a direct correlate of economic value is to obliterate difficulties without overcoming them."

¹² *Social Value*, pp. 87, 89, 198.

social force, collective unity, and personality theories. Regarding the first two of these, he writes: "It is neither profitable nor illuminating to regard society as a substance or as a force, if by these terms are meant something behind, above, below or within its human components. Whatever else it may be, society is a collection of men, women and children; and nothing which we may later attribute to it should be allowed to contradict or obscure this essential fact." The unitary theory he reduces to five subsidiary assumptions of collective unity; those involved in ideas of class, whole, individuality, system, and compound; adding that these terms are very much in need of deflation since "it is customary to apply them with awe and reverence to society when, as a matter of fact, they can equally well be applied to the alphabet or to a five-foot shelf of books."¹³

With respect to the "attempt to apply the conception of personality to society," Perry goes on to show that "personality and its prerogatives are peculiar to organic individuals of the human species, or to units of life having the peculiar structural and functional organization characteristic of organisms endowed with a highly developed central nervous system. Personality consists in a type of integration or interdependence of interests such as occurs when the interests in question are dispositions or activities of one concentric and integrated organism. It is a peculiar autonomous system, or field of control, such as in the physical man is conditioned by one continuous nervous tract having a continuous history."¹⁴

Summarizing the results of his study of these various views of society, Perry concludes:

The rejection of the conception of social *substance* implies the acceptance of the conception of social structure. Viewed in its static aspect, society is not a simple transcendent entity distinguished from men, but is a *composition* or interrelation of men. The rejection of the conception of social *force* implies the acceptance of the conception of the social *interaction*. Viewed in its dynamic aspect society is not a simple transcendent power which overrules or supersedes the activities of men, but is their resultant or field of force. Society in short is analyzable into men, both in its static and in its dynamic aspects;

¹³ *General Theory of Value*, pp. 400-402, 417-418. Cf., also, his "The Moral Economy," in *The Present Conflict of Ideals* (New York, 1918); and sec. 79A, above.

¹⁴ *General Theory of Value*, pp. 432-435.

and in the case of society, as in the case of any other phenomenon, the way of analysis is the way of explanation. . . . The composite and interactive view of society implies that its members compose something, and that they act upon, and thus modify, one another.

They compose that which may properly be termed a *whole*, possessing properties as a whole, which cannot be attributed to the members severally. They compose that which may properly be termed a *system*, possessing an orderly structure that persists when its members change. A social whole or system possesses, furthermore, an *individuality* of its own, which renders it unique within the class of such wholes or systems.

Finally, society is also a *compound* in the sense that some of the characters which attach to it as a whole, duplicate on a larger scale the characters which attach to its members. This is true, for example, of the characters just enumerated. The men who compose a society are wholes, systems and individuals, which are in turn composed of cells or of interests; so that a society may properly be said to be a whole of wholes, a system of systems, or an individual of individuals. But a society does not duplicate *all* of the characters of its members, and among those characters which attach exclusively to the members, is the character of personality, together with its associated prerogatives and modes of determination. Although a society is a whole, system and individual, composed of interested, willing, thinking, self-conscious, free, responsible and happy men, a society does not have or take an interest of its own, does not will or think, is not self-conscious, free or responsible, and does not enjoy happiness. . . .

The rejection of society as a subject *sui generis*, having interests and claims of its own over and above those of its members, is a conclusion of first importance for the theory of value. It implies, so far as concerns this mundane sphere, or such parts of it as lie at present within the range of observation, that there is only one original source of value, namely the interests of men. If society had interests of its own it would generate values of its own. These values would have to be taken into account, and they might prove in some sense intrinsically superior to those generated by the desires, hopes and fears of men. It might even be concluded that their superiority gave warrant to the denial of all human interests. If, on the other hand, there be no interests save those of men, the claims of society must be interpreted in terms of the claims of its members.¹⁵

The organismic implications of the social value, social mind, social

¹⁵ *Ibid.*, pp. 460-463.

personality, unitary social substance, and social force theories are thus vigorously denied and the conclusion reiterated "that there is only one original source of value, namely the interests of men." And this is apparently true even though we hold constantly in mind (as pointed out in Section 79A, above) that men interact with one another and are socially interrelated at every turn.

Confusion in value concepts will undoubtedly continue so long as pseudo analogies are uncritically employed and economists fail to reach below the immediate price or utility or cost fact to underlying fundamentals. Anderson at least attempts the deeper analysis and recognizes its primary importance, and in thus pointing the way he has rendered a signal service to economics, despite his falling into the pseudo analogy mire in the process. Perry, being a philosopher by training, is in a better position to deal with philosophical fundamentals; in fact, his article which appeared six months after the Anderson-Clark debate, and his book published ten years later, may be hailed as marking a definite turning point in value analysis in the United States. A modern philosophical and psychological basis, which Anderson sought, is now available, even though some faulty reasoning is discoverable here also. It behooves economists to assimilate what such men as Perry have written and to build constructively, on the foundations thus provided, a more scientific theory of economic value, having in mind, however, that these foundations are themselves still to be more securely established.¹⁶

¹⁶ The following caution should first be observed: Taking what a scholar from another province would naturally regard as "truisms" in accepted economic theory, Perry in his earlier analysis makes questionable use of the following: of the dogma of mutual gain in exchange, with its underemphasis upon production for the market and upon the significance of total income as a measure of purchasing power; of the barter assumption in a modern money economy; of the assumption of general rationality in economic conduct; of the "alternative" sophistry; and of diminishing utility without rate of consumption being given its proper emphasis. Cf. "Economic Value and Moral Value," pp. 454-479. All of these dogmas have already been critically analyzed in preceding pages of the present volume.

It should also be noted, in addition, that, from a purely philosophical point of view, Perry's comparison of economic and moral values exhibits a number of inconsistencies (see sec. 104, below), that his analysis of comparative value is decidedly faulty (see chaps. xxiv and xxv, below), and that his own philosophical position is by no means clearly defined (see secs. 88 and 89, below).

CHAPTER XXIII

VALUE FUNDAMENTALS: PERRY

TURNING AGAIN to Perry's earlier contributions to value theory, we may profitably note his very important preliminary observation that such words as "cheap" and "worth" are bound to be ambiguous and paradoxical so long as economists continue their attempts to use them in a restricted economic sense only. A book, for example, may be designated as "cheap," "mendacious," "ignorant," "edifying," and "crude," but, in so designating it, one naturally takes for granted that, besides economic value, other varieties of the genus "value" are also being employed; in the present instance, moral, cognitive, religious, and esthetic values as well.¹ Economic value can, therefore, probably best be understood in the light of this broader generic concept of which it is a part and which possesses elements common to all its subdivisions.

SECTION 87. ROLES OF INTEREST AND JUDGMENT IN GENERIC VALUE: FOUR BASIC ELEMENTS

The elements of generic value, as Perry delineates them, are simple enough, for according to him, things acquire value in becoming objects of "interest" to some human being. Perry avoids current psychological controversies with respect to behaviorism and introspection by using the term "interest" to cover any feeling, desire, will, instinct, or disposition, which underlies the attitude of liking or disliking, seeking or avoiding. "This, then, is the original source of all value. That which is an object of interest, is *eo ipso* invested with value."²

Between an individual's actual interest and the object, however, stands his possible judgment as to what the interest or the object of interest is. I "judge" that I have a certain interest or that a given object will satisfy the interest, and my judgment in either

¹ Perry, "Economic Value and Moral Value," pp. 445-446.

² *Ibid.*, p. 449. Cf., also, sec. 79A, above.

respect may be false; nevertheless, so long as I do not know the judgment to be false, it serves just as well in conferring value as if it were true. Interests, therefore, are said to be mediated by judgment, whether sound or unsound, and this mediation is exceedingly important for value theory. There are thus four elements in value, generically considered: an object, a subject, an interest of the subject in the object, and the subject's judgment regarding the object or the interest.

SECTION 88. PERRY'S PHILOSOPHICAL AND PSYCHOLOGICAL APPROACH

Referring now more definitely to the book written by Perry a decade later, one finds the same philosophical and psychological points of view as in his article, except that they are elaborated in much more detail.³ Since the book is over seven hundred pages in length, only a broad sketch of its further analysis of generic value can be attempted here. But a careful study of the treatise *en toto* is well worth the effort of the student of economic theory.

It is not here contended that economists should accept Perry's analysis without question. A number of philosophical writings on value have recently appeared and they are by no means all in agreement, albeit the points of dissent would seem to be less important than the almost abysmal ignorance that preceded the present epoch of analytical writings on the subject. The selected list of references at the end of Perry's book should prove useful to the economist in familiarizing himself further with the general field.⁴ Perry himself

³ *General Theory of Value*.

⁴ *Ibid.*, pp. 695-696. For the student interested in the controversial features, helpful suggestions may be secured from the following references: Wilbur M. Urban, in "Value Theory and Aesthetics," *The Monist*, Oct., 1926, pp. 605-616, presents a broad survey covering various schools of value theory. Three critical reviews of Perry's *General Theory of Value* are given by: Ferdinand C. S. Schiller, *Mind*, Jan., 1928, pp. 99-103; Albert L. Hammond, *Philosophical Review*, Sept., 1928, pp. 501-513; and David W. Prall, *International Journal of Ethics*, Oct., 1927, pp. 116-121. A symposium, based upon Perry's *General Theory of Value*, by DeWitt Parker, Homer H. Dubs, and Charner M. Perry, is found in *International Journal of Ethics*, July, 1930, pp. 465-495. Perry himself takes up various criticisms in a series of articles in *International Journal of Ethics*, July, 1931, pp. 429-442, and in *Journal of Philosophy*, Dec. 8, 1927, pp. 683-685; Aug. 13, 1931, pp. 449-460; Aug. 27, 1931, pp. 477-484; Sept. 10, 1931, pp. 519-526. An important article, by A. P. Brogan, is "Philosophy and

meets opposing criticism and points of view as he proceeds with his analysis, and he readily admits the inconclusiveness of some of the results of his pioneer work, calling attention in the preface and from time to time throughout the book, to his own philosophical interests.

"The philosophical method with which I should like to associate myself," he says, "aims to bridge the gap between common-sense and science; by refining the former, and by extending the latter...."

Theory of value as an attempt to be both empirical and methodical, may be regarded as a part of the modern scientific movement; while as an attempt to be empirical and methodical in the study of *man and his works*, it may be regarded as typical of this movement in its culminating phase.... Furthermore, as a general science of human life, it borrows both the results and the technique of the special sciences of human life. It profits by what biology, psychology, and the new social sciences have learned about man, and it employs in its own behalf the genetic, comparative, analytical, and descriptive methods which they have successfully exemplified.⁵

With respect to philosophical relativism, idealism, and realism, as applied to value, Perry continues:

We have reached the general conclusion that while there *is* an epistemological relativism which is vicious and self-defeating, the relativity of values is not only logically innocuous but logically helpful and illuminating. The genuine logical difficulties that have attended the theory of value have arisen from a persistent unwillingness to accept the palpable fact that values *are* relative in different senses to different subjects. This unwillingness has taken the form of denying that values are relative to interests at all, or the form of affirming their exclusive relation to some one interest, or to some one type or class of interests. The really vicious relativism arises not from the recognition of relations, but from the *insufficient* recognition of relations. The error of the old geo-centric astronomy lay not in its affirmation of the relation of sun, moon and stars to the earth, but in the distorted perspective which under-emphasized or ignored other relations.... The analogous case in theory of value is the affirmation in behalf of any subject that its interests constitute the only

"The Problem of Value," his presidential address before the Western Division of the American Philosophical Association, published in *Philosophical Review*, March, 1933, pp. 105-129.

⁵ *General Theory of Value*, pp. vii, 11-13. Cf., also, methodological point of view developed in detail in Part I, above.

centre or point of reference for all values. The common and disreputable case is egoism where an agent baldly asserts his own private interests. The more insidious case is that which enjoys among philosophers the highly reputable name of "idealism." . . . It has sometimes been supposed that a realistic theory of knowledge, such as is professed in the present study, implies that values shall be conceived as "objective" in the sense of being independent of *any* relation to a subject. But such an inference is wholly gratuitous. . . . Realism contends only that love, hope and fear, like mountains, are independent of the acts of perception or judgment whereby they are known. There is not the slightest ground for imputing to realism the grotesque notion that there are no such things as acts or states of mind, or that such things cannot be known. If a realist entertained this grotesque notion he could not affirm anything about the act of knowledge itself, which is the central topic of his discourse. Because he seeks to avoid a philosophical psycho-mania, there is no reason to accuse him of psycho-phobia.

The view here proposed may properly be termed a biocentric or psychocentric theory of value, in the sense that values are held to be functions of certain acts of living mind to which we have given the name of interest. Interests and their objects, or the complex facts, objects-of-interest, can be known like any other facts. But they do not have to obtain from anybody's knowledge of them, permission either to exist or to be what they are.⁶

In philosophy Perry is thus a realist. In psychology he claims to be a behaviorist, although he wears his behaviorism with a difference and reserves a place in his system for the unique facts of introspection.⁷ Whether he actually reconciles introspection with "objective" behavior is a question, which raises the further query as to whether his realism has not become tinged with dualism.⁸ Not that these issues are at all vital to Perry's theory of value, but it is well for the reader to have them in mind at the outset.

SECTION 89. LIMITATIONS OF THIS APPROACH

"Behaviorism, in the general sense," writes Perry, "is simply a return to the original Aristotelian view that mind and body are related

⁶ *General Theory of Value*, pp. 137-140. The last sentence of this quotation is rather misleading, since Perry also repeatedly insists that knowledge or judgment does influence interests and values and thus constantly serves to determine "what they are."

⁷ *Ibid.*, pp. 141-143, espec. p. 143 n. ⁸ Cf. Lovejoy, *The Revolt Against Dualism*

as activity and organ." To this it may be objected: If "activity" is to be regarded as more or less synonymous with mind, must not then the activity of a moving body, such as a planet, be viewed as mental? Again, in attempting to assign a status to instinctive tendencies, Perry proceeds to analyze them in purely physiological or organic terms, apparently leaving out entirely the "mental" side of their allegedly "behavioristic" constitution. Nevertheless, despite these seeming difficulties, one can hardly overemphasize the importance of Perry's conclusion that the pleasure-pain theory of human motivation has been superseded "by explanations in terms of reflex, instinct, imitation, the learning process, habit, or unconscious 'complex'" and that notable advances in the analysis of the motor-affective phases of mental activity have come with the addition of the behavioristic approach to the introspective. What the present writer fails to see, however, is how this introspective-behavioristic approach differs essentially from the psychophysical approach which William James advocated a half century ago.⁹

Turning from these controversial issues, which Perry avoids for the most part in his analysis of value in terms of interest, we may note that his book is wholly concerned with generic value, with finding the common element in "truth, goodness, legality, wealth, beauty, and piety." The work thus endeavors to provide basic concepts for such disciplines as "theory of knowledge, ethics, political science, economics, aesthetics, and philosophy of religion."

Pursuing this common element, Perry devotes the first five chapters to views which regard values: (1) as indefinable or as irrelevant to interest; (2) as related to interest in some qualified or exclusive sense, either with respect to the object of interest or with respect to the act or state of interest itself; and (3) as the unqualified object of any interest.¹⁰

SECTION 90. BIOLOGICAL AND PSYCHOLOGICAL ANALYSIS OF INTEREST

To the first two views of value just mentioned, Perry's analysis is opposed. The first of these regards value as an empirical quality,

⁹ Perry, *General Theory of Value*, pp. 142-145, 198-199; William James, *The Principles of Psychology* (2 vols.; New York, 1890).

¹⁰ *General Theory of Value*, pp. 4-5, 27-28.

unrelated to interest, which "may best be understood as an extension of that pan-objectivism, which, having concluded that the so-called 'secondary qualities,' such as color, have as good a title to extra-mental existence as the so-called primary qualities, such as figure, sees no reason why the so-called 'tertiary' qualities, such as good, should not be assigned the same status."¹¹ The second view regards value as definitely limited or qualified (with respect to the object) either on the score of purposiveness, desirability, fitness, or authoritativeness; or (with respect to the interest) on the score of a final, harmonious, absolute, or imperative will. Such efforts at qualification in value theory Perry regards as futile.

In defining value, on the contrary, in terms of the unqualified object of any interest, he has the following to say:

It is characteristic of living mind to be *for* some things and *against* others. . . . To be "for" or "against" is to view with favor or disfavor; it is a bias of the subject toward or away from. . . . This duality appears in many forms, such as liking and disliking, desire and aversion, will and refusal, or seeking and avoiding. It is to this all-pervasive characteristic of the motor-affective life, this *state, act, attitude or disposition of favor or disfavor*, to which we propose to give the name of "*interest*." . . . Any object, whatever it be, acquires value when any interest, whatever it be, is taken in it; just as anything whatsoever becomes a target when anyone whosoever aims at it.¹²

Another writer's view of value and interest, which Perry quotes with favor, may also be given here:

Anything is properly said to have value in case, and only in case, it is the object of the affective motor response which we call being *interested* in, positively or negatively. . . . The being liked, or disliked, of the object is its value. And since the being liked or disliked, is being the object of a motor-affective attitude in a subject, some sort of a subject is always requisite to there being value at all—not necessarily a *judging* subject, but a subject capable of at least motor-affective response. For the cat the cream has value, or better and more simply, the cat values the cream, or the warmth, or having her back scratched, quite regardless of her probable inability to conceive cream or to make judgments concerning warmth.¹³

¹¹ *Ibid.*, p. 29. Cf., also, Anderson, "Social Value," p. 96.

¹² *General Theory of Value*, pp. 115-116.

¹³ David W. Prall, "A Study in the Theory of Value," *University of California Publications in Philosophy*, III (1921), 215, 227.

And, as a further indication of the plausibility of defining value in terms of interest, Perry adds the following colorful illustrations bearing upon the creation of new values:

The silence of the desert is without value, until some wanderer finds it lonely and terrifying; the cataract, until some human sensibility finds it sublime, or until it is harnessed to satisfy human needs. Natural substances or the by-products of manufacture are without value until a use is found for them, whereupon their value may increase to any degree of preciousness according to the eagerness with which they are coveted. There is no entity that can be named that does not, in the very naming of it, take on a certain value through the fact that it is selected by the cognitive purpose of some interested mind. As interests grow and expand, multiplying in number and extending their radius through experience and imagination, the store of cosmic values is enriched and diversified.¹⁴

Following these preliminaries, which cover nearly one hundred and fifty pages, Perry traces the biological approach to interest, through such apparent attributes of spontaneity in lower forms of living things as (1) "internal organization and individuality, (2) *tendency* or forward direction, and (3) *adaptation to environment*," to a definitely psychological basis for a still more precise definition of interest.¹⁵ Of the first of these attributes, namely, *organization*, he writes:

Such general properties of organisms as organization and individuality yield no differentia of life, and still less a definition of interest. An interested organism is, no doubt, a peculiar kind of organized individual; but that which we seek lies in the peculiarity, rather than in the kind. This peculiarity lies in some character, not yet clearly ascertained, and occurring at some level in the organic realm, which justifies the use of such terms as "end," "pursuit," "desire," "love" and "will."

Similar conclusions are reached with respect to the *tendency* of a body and with respect to its *adaptive fitness* to environment—the second and third attributes listed—demonstrating that what is missing in the strictly biological approach to interest is the element of *control by anticipation*, the "prescience, prospicience, or foresight" which "consists in the capacity to act in the light of expectation"

¹⁴ *General Theory of Value*, p. 125.

¹⁵ *Ibid.*, pp. 147 ff.

and which, though it doubtless may be "traced far back along the line of biological evolution," is "*notably characteristic of man.*"¹⁶

This capacity to plan ahead, "to direct action by hope, fear and expectation," is thus found to constitute that basic characteristic of the intelligence "needed to complete the biological conception of interest, and make it adequate to man." As a result, the more precise definition of interest is stated as follows:

An act is interested in so far as its occurrence is due to the agreement between its accompanying expectation and the unfulfilled phases of a governing propensity. This definition involves, in the first place, a *governing propensity*, or determining tendency, or a general "set," which is at any given time in control of the organism as a whole. It further involves *subordinate* or auxiliary responses by which this propensity is executed. Finally, these subordinate responses are *tentative*, in the sense that they are selected owing to their promised results, and are on a sort of perpetual probation in the light of experience.

This definition of interest both continues the biological account of life, and paves the way for the philosophical account. As propulsive adaptation, interest may be regarded as "teleological" without implying any breach with "mechanism." On the other hand, the presence of intelligence, in the simpler forms of perception, memory, meaning and expectation, paves the way for ideation and judgment, and for the more developed forms of will and personality in which these occur.

This more complete definition of interest is rather compact. For its significance to be fully apparent the illustrations which Perry draws from animal and human behavior should be examined.¹⁷

SECTION 91. MODES AND VARIETIES OF INTEREST

Having thus set forth broadly the generic nature of interest, Perry discusses its modes and varieties, which he had previously outlined thus:

Some interests, called "instincts," are held to be innate, and others acquired. Some, called "reflexes," are held to be blind and automatic; others are held to be "intelligent." The expression, "motor-affectionate," as well as the traditional division of mind into thought, will, and feeling, suggests a duality between active and passive interests;

¹⁶ *Ibid.*, pp. 157-181.

¹⁷ *Ibid.*, pp. 182-212.

or a duality between interests directed to an imagined or represented future, and those directed to an immediate present. Terms such as "character" and "disposition" testify to a type of interest which is latent or unconscious, and which manifests itself in its outward or ulterior effects, rather than in any present subjective state. The antithesis between "impulse" and "volition" implies that interest is qualified by the presence, in some degree, of the intellectual process. The difference between desire and aversion, pleasure and pain, or liking and disliking, indicates a peculiar polarity or opposition of interest. Finally, all of these modal differences imply corresponding standards of measurement, such as "intensity" of feeling, or "strength" of desire.¹⁸

Such varied and changeable interests and values, conforming as they do to actual human behavior, may be instructively compared with the assumed homogeneous and rationalistic pattern of "utilities" and "disutilities" hypothesized in classical and neoclassical value theory. The latter concepts, even where they may be regarded as real rather than imaginary, would seem to have hardly touched the surface of those fundamentals upon which any sound understanding of economic value must be predicated.¹⁹

The relationship of economic value to price takes on quite a new meaning when it is realized that underlying interests exhibit themselves as selective, proscient, conative, tentative, instrumental, and fallible; as instinctive, reflexive, and habitual, with inherited as well as acquired dispositional propensities; as uniquely positive and negative in polarity, involving desire and aversion, liking and disliking, favor and disfavor; as recurrent and progressive, with significant interrelations and contrasts between present actualities and future possibilities; as real and playful, with the pretense or make-believe and partial executions of the latter in terms of the former; as aggressive and submissive, with interdependent and complementary interrelations; and as felt in limited and transient bodily pains and pleasures, in more enduring and "higher" sorrows and joys, or in deep-seated and impulsive emotions and passions with their primitive and irrational excitements.

Perry's analysis of the modes of interest, covering between ninety and one hundred pages, constitutes one of the most significant por-

¹⁸ *Ibid.*, pp. 140-141.

¹⁹ Cf. chap. vi, sec. 21, above.

tions of his treatment of generic value and should be read in its entirety to be adequately appreciated. A very brief epitome, in terms of value, is given in the following excerpt: "Borrowing their status from the interests which determine them, values themselves may be spoken of as inherited or acquired, positive or negative, recurrent or progressive, real or playful, aggressive or submissive, subjective or objective."²⁰

SECTION 92. RELATION BETWEEN COGNITION AND INTEREST

There is much of the irrational in values and interests. In the field of economic theory, too much emphasis has in the past been placed upon rational behavior, as indicated in detail in previous chapters.²¹ Furthermore, quite apart from this overemphasis, one closely related fact of great importance seems to have been completely overlooked by many theoretical economists, namely, that an act of reason is not synonymous with finality and infallibility in judgment. "Rationalization" of behavior has in fact recently become a sign of reproach so far as veracity is concerned. Even in the most "rational" of subjects, moreover, values and interests are always tentative and liable to error. To be mediated by judgment, as has already been pointed out, means that an interest may be directed toward the future, as well as toward the present, and, in either event, may be as often erroneous as true in relation to the facts. Erroneous expectation, ignorance, and deliberate falsification enter into ordinary cognition much more than scientific truth does. Perry regards the relation between cognition and interest of such prime significance for an understanding of value that he devotes nearly one hundred pages of his book to this one question, and in the remaining pages makes constant reference to the mediatory influences thus brought to light.

For a satisfactory understanding of Perry's analysis of the cognitive relationship, it is necessary to make a careful study of the definitions and distinctions which he develops in his Chapters XI and XII. There Perry examines the role of expectation in interest

²⁰ Perry, *General Theory of Value*, p. 304.

²¹ Cf. criticisms by Veblen and Mitchell, chaps. xvi and xvii, above.

and in cognition, exemplified with respect to the latter in sensation, meaning, judgment, and memory, and in verbal expression, communication, and language. Of special significance here is the already emphasized act of judgment, involving distinctions between "indicative" and "predicative" responses as related to truth and error and between attributive, existential, and ideal forms.

A state of judgment is thus defined as "an organization of mind, or dispositional system, such that when a first response, called the indicating response, occurs, there is a second response, called the predicative response, whose execution or nonexecution begets fulfilment or surprise. This means that the indicating response inaugurates the predicative response; and that either fulfilment or surprise will occur according as the conditions which enable the indicative response to occur, either are or are not objectively associated with conditions permitting the occurrence of the predicative response."

The distinction between interest and judgment is then described by Perry in terms of "the reciprocal determination of the act of indication and the act of predication," his analysis of which, at the risk of becoming overtechnical, is given below:

In judgment the act of indication releases the act of predication, and induces fulfilment or surprise according as the act of predication is or is not executed. In interest the fact that the act of indication and the act of predication are so connected is a condition of the occurrence of the act of indication. *The act of indication occurs owing to the prospective occurrence of the act of predication.*.... Interest may thus be said to be a product, derivative, or *function* of cognition, in the sense that its satisfaction varies with the truth of the cognition which mediates it. This is very different from saying that the act of interest is the *same* as the act of judgment, or that to be object of judgment and to be object of interest are the same thing. The nerve of judgment is the connection between the index and the predicate; whereas the nerve of interest is the connection between the predicate and a governing propensity. This is illustrated by the fact that the one connection may be strong when the other is weak. One may faintly expect, or half-heartedly believe, that to which one is strongly disposed; that is, the act of indication may release the act of predication only tentatively, or without complete committal, even when this act of predication is in urgent demand from the side of the governing propensity. Thus one may eagerly desire what one only half expects. On the other hand, the act of indication may find one fully committed

to the act of predication, even though the governing propensity is weak. One may confidently expect what one scarcely desires.

Regarding value judgments as such, Perry has the following to add:

Judgments of value do not differ formally from other judgments, and it follows that the structure and modes of judgment as already analyzed hold of them. They have their indices, their predicates and their objects; they are true or false, according as the predicative act does or does not occur upon the occasion defined by the act of indication; they may be examined as regards their simplicity and complexity; and as regards their attributive, existential or ideal form.²²

SECTION 93. COMPLEXES AND INTEGRATIONS OF INTEREST

Without attempting here to indicate further the logical and philosophical implications of the foregoing significant analysis of the cognitive relation, it will be sufficient for our purpose to pass on to the complexes and integrations of interests which such an analysis discloses. With respect to complexes of interest, Perry writes:

We have now to recognize and elaborate the fact that in and through this cognitive factor interests overlap and interpenetrate. The phrase "complexes of interest" is not meant simply to convey the idea that interests are complex. This has already been abundantly attested. Nor is it meant to convey the obvious idea that interests are multiple. It means that interests are so interrelated through possessing common constituents, or through being constituents one of another, that the satisfaction of one is a function of the satisfaction of another. Complexity of interest in this sense implies that interests are in some sense conjoined or linked together, so that in analyzing modes of complexity we shall at the same time be describing modes of integration.²³

Interests are, furthermore, compatible and incompatible:

Two responses are incompatible when they inhibit one another in the same organism, or when because of employing the same nerves, muscles or energy they cannot occur simultaneously. They may be rendered compatible through taking their turn. Eating and speech-making are incompatible responses when upon being simultaneously

²² *General Theory of Value*, pp. 329 ff., 336-338, 344-345, 357, 366.

²³ *Ibid.*, p. 369.

innervated the one prevents the other, but they are rendered compatible through assigning speech-making a time *after* dinner. Similarly, two responses enacted by different organisms may inhibit one another through colliding, or through employing the same physical instruments, as when the interests of two individuals in the same spectacle take the form of looking at it simultaneously from the same vantage-point. This rivalry may also be resolved by "taking turns."

Although the incompatibility of interests is independent of their objective relations, it need scarcely be said that it breeds opposition and antagonism. One competing interest becomes an object of enmity to the other through intervening judgments of interest. Two individuals who desire the same bread are merely rivals, but when each seeks to deprive the other, they become enemies.²⁴

All of this leads up to the problem of the integration of interests, and involves the much disputed question of rationalization and *ex post facto* reasoning. The matter of integration is summed up as follows:

The non-integration or disunion of interests may thus mean several quite different things. It may mean that they are independent, irrelevant, dissimilar, opposed, indifferent, antagonistic or incompatible. The problem of integration is the problem of removing any of these conditions, and of achieving dependence, relevance, similarity, consistency, alliance, interest (in interest), friendliness, compatibility or reinforcement. With the single exception of compatibility all of these modes of integration exist by virtue of the mediation of the related interests, or by virtue of being somehow objectively connected. Compatibility may be due to irrelevance, dissimilarity and isolation. But all modes of integration are *achieved* or *created* in the personal and social life, by acts of mediation. For even compatibility can be voluntarily brought about only by making the competing interests objects of interest, or by introducing some other form of mediated integration among them....

The problem of integration is thus an inevitable problem, despite its attendant risks and the incidental evils to which it gives rise. Taking account of these hazards and penalties, the problem of integration becomes that of achieving each mode of integration without those modes of non-integration which it conditions. It is the problem of introducing relevance, similarity and subordination without opposition; or of introducing alliance without rivalry; or of arousing human interest without hostility; or of achieving compatibility without ir-

²⁴ *Ibid.*, pp. 381-383. Cf., also, chap. xiv, sec. 47, above.

relevance and dissimilarity. Interests that are either compatible, consistent, friendly, reinforcing or allied may be termed "harmonious"; and interests that are incompatible, hostile, or opposed may be referred to as "conflicting"; so that the central problem of integration is to achieve *harmony* in place of *conflict*.²⁵

Since mediated integration can only be "achieved or created in the personal or social life," Perry is led at this point to examine the meaning of society and personality, which examination we have already had occasion to review in connection with the theory of "social value." He then continues his analysis of integration, distinguishing further between social integration and personal integration, as growing out of his "composite and interactive view of society," which reconciles much of recent sociological controversy between such individualists and environmentalists as Durkheim and Tarde and their American followers²⁶:

The principles by which subjects of interests are so integrated as to compose a society in the limited sense appropriate to the theory of value, are thus reducible to two: the principle of community of interest, according to which interests have common objects; and the principle of interrelation or mutuality of interest, according to which they have one another as objects. But while these are the ultimate principles of social integration, that which is most distinctive of human societies is the union of the two. We shall therefore recognize two derived principles, the mediation of community by interrelation of interest, and the meditation of interrelation by community of interest; or convergence mediated by mutuality, and mutuality by convergence. These derivative principles determine the peculiar character of co-operation in which the common end is valued by each as the object of the other, and in which each is valued by the other as his partner in a common enterprise. . . .

It has already been pointed out, both in general terms and in the special application to society, that the several principles by which interests are integrated may have negative as well as positive consequences. Interests may, in other words, be divided by the very relation which unites them.

Hence the problem of constructive or methodical social integration is not the problem of establishing contacts between men, but is rather the problem of making these contacts as innocuous and fruitful as

²⁵ *Ibid.*, pp. 383-389.

²⁶ Cf. chaps. ii and xxii, above; also, Perry, *General Theory of Value*, p. 460.

possible. It is not a question of creating society, but of saving men from it. Society is in part an effect of circumstance, or a natural product, and in part an artefact deliberately organized and conserved. It is inevitable in both senses, as forced upon men by biological and physiographic conditions, and as adopted by them in the elaboration of their interests. It is the task of constructive social integration to make a virtue of this social necessity, or to make as profitable as possible a mode of life that is both inescapable and indispensable.

In the performance of this task the burden falls upon man's reflective faculties. Whatever the form of conflict or weakness from which life suffers, the solution lies in developing new threads of mediation by which interests are directed in new ways upon common objects or upon one another. In this sense the process of constructive integration is always a process of rationalization.²⁷

Such is the problem of constructive social integration of interests and values in terms of human personality, which, Perry adds in conclusion, cannot be solved except through co-operation and benevolence: "On the possibility of benevolent co-operation repose whatever justifiable hopes there are of a constructive integration of mankind, and of reconciling the full advantages of united action with the prerogatives of personality."²⁸

SECTION 94. GENESIS AND MUTATIONS OF INTERESTS

Following the discussion of modes of social integration, to which he devotes his Chapters XVI and XVII, Perry takes up the question of the genesis and mutations of interests, that is, how they originate and develop. A few quotations will suggest the importance of the topic:

The field of human interests is a scene of perpetual and interdependent change, in which minor fluctuations as well as broader changes of current are transmitted far and wide through the contacts of personal and social life. There is reason to believe that this mobility of interest increases with civilization, and that it promises to be even more characteristic of the future than it is of the present....

Since both interest and its mediating cognition are functions of the behaving organism, we must take this as our microcosm and examine what happens *there*. This does not imply any denial or disregard of broader social and historical changes, but only that such sweeping changes are summations of changes in the behavior of organic indi-

²⁷ Perry, *General Theory of Value*, pp. 474, 512-513.

²⁸ *Ibid.*, p. 519.

viduals, and that their explanation and control is to be sought in the intensive analysis of the human units of which they are compounded....

Interest is a peculiar intercourse between two systems which we call the organism and its environment. This peculiar intercourse or rapport is in fact a function of all that affects either of these systems. A given individual's present interest is on the side of its environment a function of the condition of the earth's surface, and of the earth's distance from the sun, and of the structure of the atom. On the subjective side it is a function of the physico-chemical constitution of the organism, and of innumerable remote biological causes. Man's interest in his world is a function both of man and of his world, and of all of which either man or his world is in turn a function.²⁹

The question of the generation, excitation, modification, limitation, or negation of interests, Perry continues, is a question of control, of which there are four modes, to wit: by direct presentation to the subject's sensory experience; by the manifestation or simulation of interest on the part of a second person; by the removal of other eligible objects of a given interest except the one offered; or by indirect appeal through the subject's other interests.

The first two of these "methods of appeal or inducement" Perry analyzes in his Chapter XVIII, and the second two in Chapter XIX, at the beginning of which he thus sums up the significance of them all from the point of view of moral education:

The common maxims of motivation and moral education define no simple and unambiguous principle governing this aspect of mutation. On the one hand, we are accustomed to believe that men appreciate only that for which they are compelled to exert themselves, that desire weakens in proportion as it is satisfied, and that perfectly facile action, assuming the form of habit, sinks below the threshold of interest or even disappears from consciousness altogether. On the other hand, there is a greediness in interests by which they acquire strength in proportion to their indulgence, "as if increase of appetite had grown by what it fed on." Interest, furthermore, needs encouragement or hope; repeated failure, or excessive difficulty, breeds a despair by which interests may sink into apathy.

It is clearly evident, therefore, that there is no single formula which will cover these facts. We cannot say that interest is directly or inversely proportional to ease and success, or to difficulty and failure.

²⁹ *Ibid.*, pp. 520-521.

The effect of these factors is in part a question of their degree, and in part a question of the type of interest which is being affected. There is also a difference between the effect upon the present activity of the interest, and the effect upon its permanent or dispositional state, or its liability to future reawakening.³⁰

In endeavoring to formulate the principles underlying such mutations, Perry first analyzes the effect of success and failure upon progressive and recurrent interests, in which connection he reviews the significance of fatigue and satiety:

Both fatigue and satiety may be carried to a breaking-point beyond which their effect is wholly negative. But short of that point, the decline of interest through fatigue induces rest and recuperation; its decline through satiety induces abstinence and recovery of appetite; while the disuse of habituated activities enables them to acquire novelty and freshness. All of these principles are employed as instruments of control. One *prepares* for enjoyment by periods of rest, or *cultivates* appetite by abstinence, or seeks deliberately to refresh the joys of home and friends by voyages among strangers abroad.³¹

Perry next examines the changes of interacting interests in the same subject, drawing upon physiological, pathological, and psychoanalytical data. Finally, he analyzes mutations of a revolutionary character leading to changes in value of epoch-making proportions and makes the following concluding observation:

A philosophy of history would, then, seek first to formulate those principles, such as increasing mediation, acceleration and diversification, which define the general course of events. This would be its descriptive task. Then, in the second place, it would seek by some critical standard of comparative value, to determine whether or how far the direction of this trend coincides with an upward movement in the scale of values.³²

Such a philosophy of history deals not only with generic value, with which we are concerned here, but likewise with the problem of comparative value, to which we turn in the next chapter.

³⁰ *Ibid.*, pp. 550-551. Contrast this statement regarding changes in the strength of interests with the universally-diminishing-utility assumption reviewed, chap. xiii, sec. 43, above.

³¹ *Ibid.*, p. 562.

³² *Ibid.*, p. 594.

SECTION 95. OUTSTANDING FEATURES OF PERRY'S ANALYSIS

In bringing to a close this review of Perry's analysis of value fundamentals, it will be well to outline briefly its outstanding features, reserving for a later section (103) a more complete recapitulation:

(1) Special phases of value, such as the economic, can best be understood in terms of the broader field of generic value of which they are a part.

(2) Generic value is a function of the interests of men.

(3) To be interested is to be for or against, to view with favor or disfavor, to like or dislike.

(4) Beyond biologic spontaneity, tendency, and adaptive fitness to environment, the important element in interest is the psychologic, and this consists primarily in foresight, expectation, or control by anticipation.

(5) "An act is interested in so far as its occurrence is due to the agreement between its accompanying expectation and the unfulfilled phases of a governing propensity."³³

(6) Interests are of many varieties: inherited and acquired, positive and negative, recurrent and progressive, real and playful, aggressive and submissive, transient and enduring.

(7) They are mediated by cognition, and especially by judgment, which may be either true or false, or partly true and partly false.

(8) There are four basic elements in interest and therefore in value: an object, a subject, an interest of the subject in the object, and the subject's judgment regarding the object or the interest.

Any constructive or scientific theory of "social" value must, it would seem, be built upon these basic elements; and, besides describing human behavior in their light and in the light of the complexes and integrations of interest compounded out of them, such theory must include the important element of control by anticipation and judgment. Changing the expectations and judgments of men through the advancement of knowledge means changing their interests and values. At the same time, what was said regarding social interaction and social relations and values (in Section 79A, above) applies with particular force here.

³³ *Ibid.*, p. 183.

CHAPTER XXIV

COMPARATIVE VALUE

THERE ARE TWO other basic value considerations that need to be rather carefully examined before applications to the social sciences can be pursued further. These have to do with comparisons among interests and values on the one hand and on the other with the relation of such comparisons to human behavior. What are the points of similarity among values and interests, that is, how, if at all, may they be measured? And where does comparison impinge upon action? The first question will be considered here; the second, in the next chapter.

SECTION 96. A QUANTITATIVE APPROACH: DURATION, INTENSITY, INCLUSIVENESS

At the end of his exhaustive treatise on generic value, Perry addresses himself to the difficult questions raised above, and we may well begin their analysis with his treatment of them. His answer is fourfold: Values and the interests which generate them, says Perry, may be compared on the basis of correctness, preference, intensity, and inclusiveness.¹ Not that Perry regards these four criteria as comparable or commensurable among themselves. He finds no common unit among them and thinks of each standard as unique, as differing in kind from the others. They cannot, he holds, be multiplied or divided into one another, be added or subtracted, or even be compared as to degrees of difference. But within each of the four criteria he finds another situation. Here comparisons appear possible, on the basis at least of greater and less, better and worse, higher and lower, and "rather than" distinctions, and sometimes on the basis of exact numerical measurement. Except for the standard of correctness and for the relations between standards, however, his approach to comparative value is in the main quantitative in a rather restricted sense:

¹*General Theory of Value*, p. 611.

Whereas all four principles agree in that they enable us to judge value without compromising it, the first [correctness], being a non-quantitative principle, does not yield a judgment of comparative value, or of better and worse. . . . To judge an interest in terms of intensity, preference or inclusiveness, on the other hand, does introduce comparisons of magnitude, both in the interest and in the value which the interest confers on its object. In other words, there are two fundamental methods of criticism, the corrective method, and the quantitative method; the first expressed in the judgment, "this value is founded on truth or error," and the second expressed in the judgment, "this value is greater or less."²

The setting apart of correctness in the manner indicated introduces certain additional questions which will be examined in the next chapter. Preference, which likewise merits special treatment, will also be taken up there.

With respect to the two remaining criteria, one of them, intensity of interest, appears as a "quantity of a certain type" to Perry. "It is a ratio of the elements which are acting under the control of the interest, to the totality of the elements of the organism. . . . Intensity being so conceived as a ratio, it becomes possible to pass from one interest to another not only within the same organism but among different organisms."³ Thus Perry assumes not only differing quantities of intensity with respect to a given interest, but a comparison of intensities between different interests in the same individual and even between individuals. To quote him further: "There is, it would appear, a sense in which the interest in a given object may be said to be more or less intense at different times, and which may be extended to cover the case in which one of two interests (differing either subjectively or objectively) is more intense than the other."⁴

There can be no question that a given interest differs in intensity at different times. But to hold that these differing intensities can be resolved into elements, which are homogeneous and alike for all the interests of an organism or between organisms, is quite another matter. It may be stated rhetorically, but hardly precisely, that my tooth aches "twice" as much today as it did yesterday. According to Perry's atomistic assumption, not only can such a precise determi-

² *Ibid.*, p. 612.

³ *Ibid.*, p. 630.

⁴ *Ibid.*, p. 633; cf., also, other passages on p. 630.

nation be made, but in addition one may apparently state that there were (say) six "elements" of pain in the ache yesterday and thus today there are twelve. Furthermore, the disagreeable odor which now assails my nostrils can, it would seem, also be resolved into similar "elements," and the numerical ratio of the intensity of the odor to the intensity of the ache calculated. The premise accepted, these conclusions seem inevitably to follow, but it would appear hardly necessary to accept the premise, as we shall see presently.

In addition to this assumption of homogeneous unitary elements of intensity, Perry also holds that all "fully aroused" interests are of equal intensity, in which connection he says: "Comparing interests as wholes embracing all the phases of their arousal, there is no difference between the intensity of the one and that of the other. There is no intrinsic intensity attaching to a particular interest, but each interest is capable of all fractional intensities from zero to unity."⁵ John Laird points out the main difficulty involved in this assumed equivalence of "fully aroused" interests, as follows: "Unless this statement means that *no* interest is fully aroused until it is an obsession totally possessing a man or a nation, it would imply the absurd consequence that the greatest extent of a man's interest in cabbages must have exactly the same intensity as the greatest extent of his interest in his children."⁶

Such are some of the implications of viewing intensity as purely quantitative in an "extensive" sense.⁷ The statement that "there is no intrinsic intensity attaching to a particular interest" is, to say the least, open to very serious question.

Perry's standard of "inclusiveness" is similarly restricted in his analysis, being also predicated upon the idea of "extension":

This principle is applicable only to interests or aggregates of interests that are related as *whole and part*. The whole is greater than its part because it contains the part, *and* something besides; thus exceeding the part, *whatever otherwise be the magnitude of either whole or part*. The determination of comparative inclusiveness depends on the possibility of superimposition and overlapping. To compare two "co-exclusive" interests or aggregates of interest it would be necessary to establish some unit which could be transposed from the one to the

⁵ *Loc. cit.*

⁶ *The Idea of Value*, p. 359.

⁷ "Extension" is further analyzed in sec. 98, below.

other, and which would have some inherent magnitude of extent that remained unaltered in the process.⁸

Inclusiveness thus viewed in terms of some "magnitude of extent," transposable from one interest group to another, would again seem to have a wholly atomistic significance, which is even harder to imagine as applied to interests as wholes, for these have neither length, breadth, nor thickness, even though they have duration in time. Perry thinks of "duration" as implying the same principle as "inclusiveness,"⁹ but it will be less confusing for further analysis to separate the two. The one (duration) is clearly an "extensive" magnitude of quantity. The other (inclusiveness) would appear to be just as clearly "nonextensive," except in some unreal sense through which one interest or group of interests is conceived to cover a greater surface or area or to be of greater volume than some other interest or interest group. If, apart from duration in time, Perry means anything else than such extension in space, by the relation of part to whole, by the "possibility of superimposition and overlapping," by the establishment of a unit which can be transposed and remain "unaltered in the process," one must look elsewhere in his treatise, for it is not reflected in the quotation just given. That he has other implications in mind will be indicated presently. Here it is sufficient to point out that, excluding duration, any extensive or spatial connotation in "inclusiveness" as applied to interest, no matter how much this might be proper in other applications, leads mainly into a realm of fruitless unreality.

The foregoing introductory words regarding the difficulties involved in a restricted quantitative approach (in "extensive" terms) to the problem of comparative interests and values is not meant to be complete but rather to illustrate the need for a clearer differentiation between such quantitative aspects and other aspects.

SECTION 97. QUALITATIVE CONSIDERATIONS: UNIQUE DIFFERENCES IN KIND

While Perry seems to regard comparative value almost entirely in "extensively" quantitative terms, Hobson lays emphasis upon the merits of the qualitative approach. Passing over what seem

⁸ *General Theory of Value*, p. 646.

⁹ *Ibid.*, p. 649.

like infelicities of expression on Hobson's part, such as a debatable distinction between science and art and a loose use of the term "organic," we shall concern ourselves here with the analysis of the valuation process undertaken in the last chapter of his *Work and Wealth*.¹⁰ Hobson there holds that any attempted reduction of values (or interests) to strictly quantitative terms must fail: (1) because the factors of a creative unity can never be isolated and compared piecemeal without losing the value of the unity itself; (2) because the ordinary economic method of marginal comparisons is an "illusory account of the psychical process by which a man lays out his money, or his time, or his energy";¹¹ (3) because one can only know in retrospect what the elements of human action seem to have been, and this can have little bearing on calculating or forecasting future events in so far as these are contingent upon creative and novel elements and do not precisely repeat the past. In short, Hobson maintains, it "explains nothing" and only "darkens counsel" to assume that qualitative differences in kind can be resolved by reference to quantitative standards, that creative action can be broken up and measured in terms of what appear to be its constituent parts, or that a retrospective examination can ever explain the novelties of creative energy.¹²

Drawing illustrations from economics, ethics, politics, and art, Hobson undertakes to show how quantitative analysis has been erroneously applied in these fields. Thus in one instance he finds that humanitarian feeling seems to have been reduced to common terms with love of music. In another case, a sense of moral obligation appears to have been directly compared with physical pleasure. In a third instance, political judgment is "conceived in terms of size, weight, strain, or intensity." In a fourth case the painter's masterpiece appears as having been evaluated in terms of marginal distributions of quantities of line and color, or "Shakespeare in terms of the gradation of intensity of the various emotions involved, the length of pauses of suspense, . . . the relative strength or height of the

¹⁰ *Work and Wealth*, pp. 320-361.

¹¹ *Ibid.*, p. 331.

¹² *Ibid.*, pp. 332-333; cf., also, Henry W. Stuart, "The Phases of the Economic Interest," in Dewey's *Creative Intelligence*, pp. 318 ff.

climaxes and subclimaxes, the growing rapidity of movement towards the catastrophe.”¹³

Such retrospective and quantitative mechanics, Hobson goes on to indicate, cannot assess the real worth of a painting, or of a drama, or of even an ordinary act of deliberate choice, in terms of its unique wholeness or of its prospective contemplation or creation. These creative elements are the real values and they must always escape the quantitative scale, since they represent unique differences in kind, “never identical in any two cases or at any two times.”¹⁴ Concerning any attempted precise comparison of uniques he adds:

The difference between one picture and another, one poem and another, is a difference of quality. It is of course true that by a merely linguistic necessity we often speak of a picture as being “much” finer than another, and compare the “greatness” of one poet with that of another. But we are aware all the time that we are really comparing unlikes, dealing with qualitative differences. On no other supposition indeed can we understand the valuation set upon a work of genius as compared with one of talent.

“Oh the little more, how much it is,
And the little less, what worlds away.”¹⁵

Commenting in particular upon purely quantitative standards when applied to economic valuations, Hobson goes on to say that, in apportioning his income, a man does not separately compare his several interests, and “having assigned so much utility or desirability to each,” make his expenditures “so as to maximize the aggregate.” Rather does he, in so far as he is rational, paint himself “upon the canvas of time,” using what means are at his disposal, including his money income. After the event, the expenditures exhibit themselves in certain proportions with respect to his known interests. “But these proportions are not determined by a calculation of the separate values of the various items. For, strictly speaking, they have no separate values, any more than have the lines or colours in a picture. Only by consideration of what we may term indifferently the artistic or organic purpose of the whole can a true appreciation or valuation be attained.”¹⁶

¹³ *Work and Wealth*, pp. 326-330.

¹⁴ *Ibid.*, p. 333.

¹⁵ *Ibid.*, p. 331.

¹⁶ *Ibid.*, pp. 333-334.

In a more recent work, Hobson touches further upon the value of groups of interests viewed as unified wholes, upon the difference between narrow and wider groupings as constituting less and more inclusive personal and social hierarchies of values, and upon strictly organic interests as contrasted with those developed through human purpose and rational choice.¹⁷

SECTION 98. KINDS OF QUANTITIES OR MAGNITUDES:
EXTENSION, INTENSION, DISTENSION

It should be noted with respect to Hobson's emphasis on quality and uniqueness that he does not appear to insist that values must in every sense be quantitatively unmeasurable. He simply does not deal with that particular issue, but dwells rather upon those phases of values as wholes which would seem to render them unique and understandable in a qualitative sense only. It thus seems desirable, for a fuller comprehension of comparative value, that such concepts as quantity and quality; measurement and commensurability; general comparatives and numerical comparatives; kind, degree, intensity, and magnitude be somewhat clearly defined.

The continuing confusion in the use of the words "quantity" and "quality" needs to be especially pointed out. Even in an authoritative modern treatise on logic, the conception is countenanced of "a thing as merely qualitative, and yet as susceptible of quantitative variation."¹⁸ If there is to be any clear-cut distinction between these two terms, it is hard to see how such an unprecise statement is helpful, for where a thing is quantitatively variable, how can it be *merely* qualitative? It would seem better to say that the thing in question has *both* quantitative and qualitative aspects.

Possibly a more helpful approach is through the neutral concept of "magnitude," viewed not only "extensively," but also "intensively" and "distensively."¹⁹ Extensive magnitude may be expressed in the words used by G. F. Stout in defining quantity, as "the existence of parts within a whole considered in abstraction from

¹⁷ *Economics and Ethics* (Boston, 1929), pp. 70-74.

¹⁸ William E. Johnson, *Logic* (Cambridge, England, 1922), Part II, p. 174.

¹⁹ *Ibid.*, Part II, pp. 161-174.

the special nature of the parts or of the whole.”²⁰ Thus, with respect to entities occupying space, the division of a whole into parts or the adding of parts to make up a whole, is readily understandable. This process is the one commonly thought of as “quantitative,” as in measures of length, area, volume, and weight. And this concept of extensive magnitude may be carried even further: besides space-magnitudes, there are, according to Johnson, extensive time-magnitudes, as in duration, and extensive stretch magnitudes, as in “a continuous aggregate of hues or of pitches” arranged in a scale.²¹ All this may be accepted. Stretches of color, hue, and sound pitches arranged with a laboratory knowledge of wave lengths and frequencies are one thing; they are clearly measurable as extensive magnitudes. At the same time, where colors or sounds appear to the mind with their relatively unique contrasts, other criteria of comparison, such as “intensive” and “distensive,” would seem to be more applicable:

[Intensive magnitude may] be regarded as implicating parts, though none of them are separately distinguishable within the whole. In this it differs from a continuous extensive quantum. For in a continuous extensive quantum we can distinguish and count an indefinite number of parts.... In the intensive magnitude, on the contrary, there are no assignable parts at all.²²

Besides saying absolutely that what possesses intensive magnitude exists or does not exist, we can say that it exists in various degrees. On the other hand, it is held to be distinguished from extensive quantity or magnitude, because the difference between one intensity and another cannot be exhibited as a separate intensive magnitude; whereas the difference between one extensive magnitude and another is itself an extensive magnitude.

In the gradual transition from blue to green, through intervening blue-greens and green-blues, each colour in the series is bluer than that which follows it and greener than that which precedes it. Such differences of more and less are intensive.... Degree may be used to denote all kinds of intensive magnitudes.²³

²⁰ James M. Baldwin (ed.), *Dictionary of Philosophy and Psychology* (New York, 1928), II, 409.

²¹ *Op. cit.*, Part II, p. 163.

²² Baldwin (ed.), *op. cit.*, II, 410.

²³ *Ibid.*, I, 559. Baldwin and Stout here appear to come rather close to Johnson’s “stretch magnitude,” which is extensive.

Comparisons, therefore, by means of differences of degree or intensity would seem to apply only within a given magnitude, as within a color or a sound, and then merely as referring to preceding and following conditions or states. It is thus improper to speak of intensive "elements" considered in abstraction. "It is impossible," Johnson maintains, "to compare two kinds of intensive magnitudes such as the brightness of a light sensation with the loudness of a sound sensation."²⁴

Differences in kind may no longer have an "absolute" meaning in philosophy, but the more we approach such differences the less does quantitative comparison of any character seem possible, unless it be by way of "association" or "connection," or to use the new concept coined by Johnson, by way of "distensive magnitude." Thus even the color red and a trumpet blast may after all be considered together, but in quite another sense than either extensively or intensively.²⁵ The idea of "distensive magnitude," as characterizing relationships between uniques other than comparisons by way of extension and intensity, appeals to the present writer as a valuable addition to our logical concepts. The inclusion of a smaller or a larger number of the uniques in a given grouping or configuration would thus lead to comparisons in terms of "distension." But, as in other pioneering efforts, there are difficulties in developing such a new concept. Certain of the comparisons made by Johnson between the three categories of magnitude seem to be excellent; others, rather confusing. We may agree, with possibly some reservations, that distensive and intensive magnitudes "apply to qualities and not obviously to things occupying a quantum of space or time or forming a linear or temporal series,"²⁶ that "distensive magnitude is a relation *between* determinates under some one given determinable, whereas intensive magnitude holds *within* each separate determinate," and that "the minimum or zero of distensive magnitude is identity, whereas the minimum or zero of intensive magnitude is non-existence."²⁷ But that "distensive" should be placed "intermediately between extensive and intensive," as Johnson suggests, would seem hardly tenable in logic.²⁸ These three categories of

²⁴ *Op. cit.*, Part II, pp. 172-173. ²⁵ *Ibid.*, Part I, pp. 190-191.

²⁵ *Ibid.*, Part II, pp. 173-174. ²⁷ *Ibid.*, Part II, p. 172. ²⁸ *Ibid.*, Part II, p. 162.

magnitude appear to be as much uniques as anything in a relative world could be, and, therefore, no definite "stretch" or "order" is assignable to them when taken together. Distension appears qualitatively different from extension and intension and is not apparently between them but simply uniquely separate from them.

It is at any rate indicated that to measure extensively, intensively, and distensively is to compare magnitudes in three different ways: (1) rather precisely, with a *common unit* used as a basis, whether spatially, temporally, or in the sense of a stretch; (2) less precisely, with a preceding or following state or condition, in terms of *degrees* of more and less; and (3) still more vaguely, within a preconceived pattern or relational configuration, in terms merely of the *number* of different relations involved. The concept "quantitative" may be employed to designate all three kinds of comparison, but in doing so it should be held in mind that common usage is being exceeded and that "magnitude" and "quantity" thus come to be regarded more or less synonymously. Perry's use of "quantitative" is almost entirely restricted to "extensive" comparisons, as already suggested.

As for the term "commensurable," there would appear to be less warrant for a comprehensive use. In ordinary mathematics this term is restricted to comparisons in terms of positive whole numbers and common fractions. Thus the $\sqrt{2}$ is said to be incommensurable. The concept is perforce sometimes used more loosely to denote general numerical comparability,²⁹ but there would seem to be no benefit in such employment and some added confusion. As applied to *extensive* measurement, the following arrangement in order of precision appears fairly well accepted: commensurability as the more exact or precise, since it includes commensurables only; and general numerical measurement, including incommensurables, as less exact but more comprehensive. In *distensive* magnitude, positive whole numbers are used to designate the number of relations; but, since no spatial connotations can be implied, such use is not to be confused with the diagrammatic sense in which two areas are said to be "commensurable." As for *intensive* comparisons, neither commensurable nor incommensurable standards of precision can be applied to "more and less" or matters of degree, as already indicated.

²⁹ Laird, *The Idea of Value*, pp. 353 ff.

SECTION 99. CRITICAL ESTIMATE OF COMPARATIVE VALUE
QUANTITATIVELY AND QUALITATIVELY CONSIDERED

Having in mind this analysis of magnitude and Hobson's observations about qualitative uniques, we may now examine further various standards of comparative value.

Perry's contention that the intensity of one interest may be compared with the intensity of another interest has already been challenged on the ground that intensity cannot be divided into homogeneous unitary elements and that "fully aroused" interests cannot properly be thought of as equal in intensity. The analysis of magnitude bears out these observations. Homogeneous unitary elements and equality of "fully aroused states" are quantitative concepts applicable to extensive but not to intensive magnitudes. Degrees of more and less cannot be abstracted from their immediate applications. Their reference is not to a common and invariable unit but always to a preceding or following state or condition, so that the more or less of one state is not comparable, either extensively or intensively, with the more or less of another state. Intensity is applicable within a given interest or value but not between interests or values. And if comparison between the intensities of different interests seems impossible, so does comparison of their "fully aroused" states, whatever that may mean. These are considerations not touched upon in Perry's discussion of intensity.

While intensive magnitude thus takes cognizance of inherent differences in kind between interests (or values) and their changing states, distensive magnitude recognizes the further fact that no human interest, no matter how unique, is completely isolated or unrelated to other interests. "Inclusiveness" (distinguished from duration in time) would seem to represent an important category of such distensive magnitude or relatedness. Perry sometimes speaks of "overlapping" in this connection, but, as already suggested, this should not be thought of in a spatial or extended sense. In the following passage illustrating the further meaning of inclusiveness as applied to interests and values—"overlapping," "superadded," and "summation" are, we assume, to be thought of wholly in terms of interconnectedness—not of extension:

There is an effect of overlapping when two interests have the same object, whether or not the interests are similar, and this overlapping is implied when a class of objects assumed to be valuable in relation to one type of interest, is found to be valuable also in terms of another. Such *cross-evaluation* is one of the meanings of *evaluation*, as when objects having beauty in relation to the aesthetic interest are deemed to have a superadded value by virtue of their relation to economic or moral interests. Evaluation in this sense is the application of a new standard to objects already judged good by an old, and it implies, for example, that an act which is virtuous and priceless, as well as beautiful, is better than an act which is merely beautiful. . . .

This effect of overlapping is equally well illustrated by the case of the object of consummatory interest, as when the same music is enjoyed by two or more listeners; and by the case of the object of a subordinate interest, as when two or more subjects seek the same means for diverse ends. The summation of value which results from the community of intermediate interests governed by different ulterior purposes, is notably characteristic of the material and social interconnections of modern civilization. There is, as a matter of fact, more unanimity as regards what is wanted than as regards what it is wanted for, so that the common instrumentalities of life often assume an aspect of more solid worth than the more private and remote values which they subserve.³⁰

It should now be apparent why "duration" must not be regarded as a phase of "inclusiveness." The inclusiveness of a group of interests in terms of their interrelations is distensive and takes into account the qualitative uniqueness of the interests involved. Duration in time is a purely extensive magnitude and is used as a separate standard of comparison by many writers, as, for example, in the long history of attempts to measure value in terms of pleasure.³¹ In brief, with respect to the standards of intensity, inclusiveness, and duration, which represent separate principles of comparative interests or values, the first exhibits degrees of magnitude *within* interests, and the second and third indicate comparisons of a limited and special character *between* interests.

But when everything is said and done with respect to comparative measurements applied as indicated, it should not be overlooked that these quantitative criteria are formal and thus superficial, and

³⁰ Perry, *General Theory of Value*, pp. 647-648.

³¹ Laird, *The Idea of Value*, pp. 323-347.

that they fail to characterize the content and peculiar differences of what Hobson describes as qualitative uniques. A dozen men may be compared extensively as to weight or age, distensively with respect to number of living relatives, and intensively not at all as between one another, but such quantitative comparisons indicate very little, if anything, regarding the personality each individual possesses. The qualitative phases of the uniques, as Hobson insists, still remain untouched as the heart of the value problem, no matter how much their quantitative aspects may be subjected to rule.

We may sum up the matter thus far by saying that interests and values can presumably be compared extensively, intensively, and distensively, that such comparisons deal only with formal aspects, that both intensive and distensive magnitudes recognize qualitative phases which cannot be broken down and measured piecemeal, and that any analysis of the unique contents of interests and values viewed as wholes must proceed in some other fashion than by way of formal quantitative measurement.

CHAPTER XXV

CORRECTNESS, PREFERENCE, AND BEHAVIOR

THE CRITERIA OF correctness and preference remain to be considered. In the light of Johnson's definitions and the foregoing discussion of the three types of quantitative magnitude, no additional standards of quantitative comparison seem to be possible. That this conclusion is justified with respect to correctness and preference becomes understandable when we recall that the concept of value involves a subject, an object, an interest of the subject in the object, and judgments by the subject. Correctness and preference do not compare interest with interest or value with value. They reach beyond interests as such to their objects, to their subjects, or to judgments about them and their objects. Interests and values do, of course, imply the existence of subjects, objects, and judgments, but one might conceivably compare subjects with subjects, objects with objects, judgments with judgments, or make cross comparisons, as well as attempt comparisons between values and values or interests and interests. The three categories of quantitative measurement (extensive, intensive, and distensive) could then be applied to any of these comparisons, but what the attempted comparisons are is the primary consideration to be held clearly in mind. It should not be forgotten that in the last chapter we have dealt wholly with comparative interests and values.

SECTION 100. CORRECTNESS

That correctness implies a comparison not between interest and interest or value and value but between interest (or value) and something else, Perry himself recognizes when he says in a quotation already given that the correctness principle "does not yield a judgment of comparative value." On the same page, he writes further:

The proper understanding of the principle of correctness depends, as we have seen, on distinguishing sharply and tenaciously between judgments of value, and interest-judgments. Strictly speaking, only

judgments can be true or false. Values themselves, taken as relations of objects to interest, either are or are not, and judgments about them, or judgments of value, are true or false accordingly. Interest-judgments, on the other hand, are those judgments about the object which mediate the interest; and these judgments, also, may be true or false. Thus a value may be either the *object* of a true or false judgment, or *founded* on a true or false judgment.¹

The corrective principle, therefore, applies to *judgments*, for "strictly speaking, only judgments can be true or false." And judgments may be either interest-judgments or judgments of value, thus involving a comparison or relation between a mediated interest and the constitution of the subject, or between a mediated interest and the character of its object. In other words, to correct a judgment is to change an interest (or value) so that it represents more closely either the actual constitution of the subject or the actual character of the object. And note the "more closely." Perry speaks of the corrective principle as absolute or "nonquantitative," that is, he regards a judgment as either correct or incorrect, not "more or less" correct.² Closer examination, however, would seem to disclose no warrant for such an absolutistic conclusion. Judgments about a given object, let us say the Milky Way, become more and more nearly correct as knowledge deepens. A relative standard of judgment rather than an absolute one (except possibly as something to be approached as a limit which is never completely reached), appears more in keeping with the facts. For us here, the important consideration about correctness is that it is evidently not a standard of comparative value or interest at all, but a standard of comparative judgments about the subjects or the objects of values and interests.

SECTION 101. PREFERENCE

In a similar sense, though in a somewhat different application, Perry's remaining criterion, preference, also implies something other than comparative value (or interest) as such. It focuses attention upon the *subject*, upon his personal opinions and governing propensities, and upon the reasons for his selections or choices, holding in mind not only the three quantitative criteria of comparative value

¹ *General Theory of Value*, p. 612.

² *Ibid.*

but also the uniquely qualitative characteristics of the governing interests and interest-judgments which the quantitative criteria can only schematically and superficially represent. Some of these considerations Perry outlines as follows:

We have first to distinguish a difference between two judgments of comparative value, from a difference of preference. The former case is represented by my judgment that "b is better than a," as opposed to your judgment that "a is better than b." This is a difference of opinion, which assumes a common meaning for the predicate "better." . . . Preference would here enter into the discussion only so far as it was agreed to construe "better" as "preferred," there being a difference of opinion as to what was in fact preferred.³

The physiology of preference is wholly speculative. The preference of the final object to the instrument suggests that the preferred object advances the governing propensity further towards fulfilment. The preference of one final object to another, or of one instrument to another, suggests that the preferred object fulfils the governing propensity more adequately. Both suggestions may perhaps be subsumed under the idea of completeness of satisfaction or of *fitness* between the object and the subjective demand.⁴

Thus preference is reduced to a matter of personal opinion, the physiology of which is still "wholly speculative."

In the last sentence of these quotations, two applications of the preference criterion seem to be indicated: one, a most important application; the other, of much less significance. The fitness or adequacy of the preferred object, over other possible objects, to fulfil a given interest, is surely of minor consequence if the interest is thought of in an isolated atomistic way, under modern economic conditions where many objects may be offered, any one of which will serve a given interest almost equally well. Preference or choice applied to everyday minutiae is thus ordinarily not important and often borders on caprice. And, be it observed, this is probably the usual situation in economics as distinguished from ethics. On the other hand, when viewed in terms of completeness of satisfaction, preference may be applied broadly to a whole pattern or configuration of interests, which an individual prefers to another or to other patterns, and with respect to which as a unique whole he may exhibit

* *Ibid.*, p. 638.

⁴ *Ibid.*, p. 635.

deliberate and important choices, while giving little attention, if any, to the minutiae of day-to-day activity through which, piecemeal, the pattern finds fulfillment.

Whether the choice is deliberate or capricious, however, the subject in the process of preference does much more than compare interests or values in one of the three quantitative ways indicated. He may consciously or unconsciously make one comparison on the basis of duration; another on the basis of intensity; a third on the basis of inclusiveness; but, since there is no way of comparing duration with intensity or with inclusiveness, the formula for selection (whatever it may be) can hardly be comprehended in the terms thus far considered. That formula has to do with personality and the particular situation of each individual, which doubtless depend upon many factors, among them heredity, environment, and other circumstances, controllable and uncontrollable.

In dealing with the peculiar character of preference, Perry makes the significant suggestion that the comparisons here implied are "rather than" comparisons and not "more and less" comparisons.⁵ Laird comments along similar lines on these and other phases of the preference criterion. "To prefer one thing," he says, "is not to desire one *more* than another, but one *rather than* another"; and, he adds, preference ordinarily expresses only "the brute circumstance of private or racial constitution." Often, also, preferences are not at all logical or rational: "From the point of view of preference, the question is simply what feelings people actually have. Such feelings are none the less genuine if they are whimsical, variable, and capricious."⁶

It may thus be said that preference constitutes a peculiar relation between interests or values as wholes, in which quantitative aspects are doubtless included (but in a minor way) and in which qualitative aspects predominate. We have then four criteria of comparative value: three that are quantitative; and one—apparently by far the most important and significant criterion—that is primarily qualitative, evaluating the content as well as the outward form of values and interests.

⁵ *Ibid.*, p. 616.

⁶ Laird, *The Idea of Value*, pp. 359, 361-362.

SECTION 102. COMPARATIVE VALUE AND HUMAN BEHAVIOR

When Perry includes the principles of correctness and preference among his criteria, he is apparently thinking beyond mere comparative values to those considerations which are regarded as bringing about the highest individual and social good, or as securing the maximum of happiness in human behavior. These broader considerations may now be epitomized in terms of correctness of judgments; maximum duration, intensity, and inclusiveness of interests and values; and the achievement of the "best" in the matter of preference. Perry's order or relationship among these criteria to secure the highest good is as follows: Assuming the mediating judgments to be as nearly correct as possible, there should first be achieved the most feasible and inclusive integration of the interests of the individual; each of these integrated interests should then be directed toward that object which will best satisfy it; after which each object should be consumed (or interest pursued) with the greatest possible intensity. Thus, Perry believes, the highest good, the object of an all-inclusive and harmonious system of interests, may be most satisfactorily attained.⁷

As a conceivable ideal, human behavior in terms of an all-inclusive and harmonious system of interests is all very well. But the putative attainment of such an ideal in the manner indicated fails to take account of another very important relationship, namely, that between preference and human action. "For the good that I would, I do not; but the evil which I would not, that I do." It is common knowledge that preference and action are often very much at variance. How are the exigencies of everyday behavior, with its peremptory habitual or irrational (rather than deliberately conscious) activities, related to preference or choice on the one hand and to objectively comparative values on the other?

Only the bare suggestion of an answer to this question can be here attempted. Since the three standards of quantitatively comparative value cannot be resolved into a common standard, it is to be presumed that intensity, duration, and inclusiveness operate independently. If preference and action often conflict, it probably

⁷ *General Theory of Value*, pp. 656-659.

means that one (or two) of the three quantitative value magnitudes is closer to the behavior mechanism than to the preference mechanism. The behavior mechanism may be regarded as, in the main, instinctive; the preference mechanism, at least somewhat more rational; so that we may assume that intensity of interest is nearer to the one; inclusiveness, to the other; with duration occupying a somewhat middle position. To put it otherwise, we may assume that the action mechanism is set off more readily through an *enduring intensity* of interest, whereas preference may be given to an *inclusive and enduring* pattern of interests. The fulfillment of the latter might also be thought of as coming nearer to the highest good of the individual, instead of finding satisfaction for several conflicting but intense interests which drive the personality now this way, now that. We should, therefore, modify Perry's order or relationship between his criteria in the following way: To secure the highest good in action, not merely in contemplation, one should first (upon reaching the plane of self-analysis and of a deliberate organization of life's interests) choose a fairly inclusive and harmonious system of interests, which somewhat correctly conforms to reality both in nature and in the organism; and then through repetition, ideation, and suggestion, or otherwise, dwell upon these interests until they become enduring habits of the individual and are intensified until they dominate the personality. Preference from this point of view may be regarded as a working drawing or diagrammatic representation through which the action mechanism of a given individual must be reconstructed, modified, or conditioned, if subsequent behavior is to reflect the contemplated diagram.

Such a restatement, however, is still not complete, for it leaves out of account the dynamic or experimental in human behavior; that is, one cannot apparently say that a certain set of fairly inclusive interests must *first* be correct in relation to reality, *after which* the contemplated diagram is followed precisely by satisfactory action, but, rather, that the relationship between correctness, quantitatively comparative value, preference, and action is one of multiple causation and experiment, a developmental process. If, in connection with a contemplated pattern of interests, unsatisfactory action is experienced because of a lack of correctness between the interest-

judgments and reality or because of a poorly constructed grouping of interests, the next step would be to reconstruct the pattern or to secure a better integration. The choice, in short, of an inclusive and harmonious set of interests should be regarded as a tentative and progressive process. Its conformity with nature is experimentally verified through action, which in turn serves to modify the grouping of interests and provides for further experiment and verification. Hypothesis, experiment, and verification must apparently come to be regarded as just as truly applicable to human behavior, in efforts to achieve the "highest good," as they have long since come to be regarded as essential to progress in physical and biological science.

SECTION 103. THE QUALITATIVE CHARACTERISTICS OF INTERESTS AND VALUES

Before bringing the present chapter to a close, it will be well to return to those phases of interest and value which are not primarily comprehended under quantitative standards. These are the more significant, qualitative aspects which Hobson emphasizes and which Perry, though giving little attention to them under comparative value, analyzes most profoundly in the greater part of his treatise. What is presented below will also serve as a recapitulation of Perry's analysis of the fundamentals of generic value.⁸

Interest is, to reiterate, a peculiar biopsychological "state, act, attitude or disposition of favor or disfavor," closely associated with the motor-affective life of the individual organism. Each such motor-affective state or attitude is mediated by cognition, and especially by judgment, that is, it may or may not be well grounded with respect to the actual constitution of the subject or the character of the object of interest, and it may or may not harmonize with other equally peculiar interest-states of the given individual.⁹ Another important aspect of the interest-state, as it applies particularly to man, lies in man's capacity to act "in the light of expectation"; interest is motivated by fear, hope, and anticipation, and, besides being dominated by a governing propensity, controls many tentative subordinate and auxiliary responses which are selected because of their expected results and which are "on a sort of perpetual

⁸ Cf. chap. xxiii, above.

⁹ Perry, *General Theory of Value*, pp. 113-116.

probation in the light of experience." This "prospicient adaptation" in interest thus implies memory, meaning, ideation, will, and personality.¹⁰

Of such complex and variable stuff is interest in general constituted. Each particular interest is a more or less unique permutation or combination of this stuff. And besides being qualitatively selective, prospicient, conative, tentative, instrumental, and fallible, it exhibits itself in many special modes or varieties. It may be instinctive, reflexive, or habitual, with inherited or acquired dispositional tendencies. It may be positive or negative in polarity, desiring or averting, liking or disliking, favoring or disapproving. It may be recurrent or progressive, with uniquely significant interrelations and contrasts between present actualities and future possibilities. It may be real or playful, with pretense or make-believe and only partial executions of the latter in comparison with the former. It may be aggressive or submissive, with many interdependent and complementary interrelations. It may be felt in limited and transient bodily pleasures and pains; in more enduring and "higher" joys and sorrows; or in deep-seated and intensely impulsive emotions and passions, with primitive and irrational excitements and uncontrollable drives to action.¹¹

Next to be noted is the fact that these motor-affective interest-states do not normally operate in an isolated fashion. They are as a rule integrated into complexes or systems, so that from the point of view of the relations between interests, there are additional qualitative characteristics to be taken into account. Because of cognition and personality and because of the organic unity of the individual, interests may possess common constituents, may be interrelated in innumerable ways, and through such interrelations they may become functions of and modify one another. But interests may also be incompatible as well as compatible. The same nerves and muscles may be simultaneously called upon to serve different purposes, so that opposition and conflict are likewise to be accommodated. Various interests or groups of interest may thus be indifferent, irrelevant, opposed, or antagonistic with respect to other interests or groups, or they may be friendly, relevant, and consistent. The

¹⁰ *Ibid.*, pp. 180-184.

¹¹ *Ibid.*, pp. 213-305.

individual is thus confronted with a creative problem in integration—of achieving, through experimental acts of mediation, a harmonious system of interests in place of disruptive complexes. This problem applies to the social as well as to the personal life.¹²

Finally, interests and integrations of interests are not "static" but "dynamic." "The field of human interests is a scene of perpetual and interdependent change, in which minor fluctuations as well as broader changes of current are transmitted far and wide through the contacts of personal and social life."¹³ Anything that affects the organism or his environment changes the flow of his interests. The kind of community in which he dwells, the state of the weather, the season of the year, the character of his employment, whether he is married or single, whether it is morning, afternoon, or evening—innumerable rapidly changing or more slowly operating environmental influences constitute the moving scene conditioning each individual's interests. On the other side, we have his particular inherited and acquired biopsychological constitution; his peculiar instinctive, reflexive, and habitual drives to action which recur or progress from moment to moment or from day to day; his state of health; his ability to satisfy what he regards as the necessities of existence, or, in addition, the comforts and luxuries; the character of his more enduring interests and the amount of time he is able to devote to their fulfillment.

It is the uniquely complex and creative unity of one interest or interest-group, with its particular combination of such phases as are described above, which, Hobson feels, cannot be compared quantitatively with any other unique interest or group and which, he insists, cannot be broken down and measured by any retrospective mechanics. And what is thus said of interests may with equal truth be said of values.¹⁴

¹² *Ibid.*, pp. 369, 383-385.

¹³ *Ibid.*, p. 520.

¹⁴ *Ibid.*, pp. 304, 693.

Not only, as we have seen, do interests and thus values ebb and flow, now rising to a crescendo and then falling to a diminuendo, but some disappear completely and new ones are constantly arising, depending upon uniquely conditioned hereditary and environmental factors operating upon each particular individual. Some interests and values, as the desire for coffee, come and go rather rapidly and recur frequently. Others, as the enjoyment of poetry or music, have an entirely different rhythm. The rise of new interests often reflects upon the entire pattern of old interests. And the

How little such mechanics can be applied may now be more fully apparent. Take my interest in having a swim in the ocean and my interest in eating an orange. The one interest today may be more or less intense than on the previous occasion when I took a swim; the other interest may also be more or less intense than when I last ate an orange. But I cannot compare the intensity of my swim-desire with the intensity of my orange-want. Any common unit is lacking here. As for duration, from the moment I began thinking about the swim to the moment its pleasant after-effects were no longer felt (if such a time-stretch were ever or could ever be calculated), there elapsed, we shall say, twenty-four hours. The duration of my orange-want, from seeing and smelling the fruit to the fading out of the interest after eating the orange was (say) an hour. We shall also assume that both interests are consistent with my other interests, that no conflicts are involved, but that the swim-interest is more inclusive (has more relations) than the orange want.

The quantitative criteria have been applied, and what is the result? Can I now say that I have in any real sense compared the two interests or values? On the one hand, I have the tang of salt air assailing my nostrils, the surf striking my body, the cold water gripping and exhilarating me, the taste of brine in my mouth, my arms and legs in rhythmic motion through the water, and many other uniquely related sensations, actions, and feelings. On the other hand, I have a round object pleasing to the eye, with a pungent odor and unique taste, which is chewed and swallowed and carries with it a train of digestive sensations and operations. Does intensity, or duration, or inclusiveness evaluate the swim-interest or the orange-want as a unique whole in any significant sense? Because the one interest has a duration twenty-four times the other and is more inclusive, can I therefore say that it has given me "more satisfaction"? Do all three quantitative measures taken together get us one whit nearer to whether or not it is "better" to smell brine and taste salt and give play to arms and legs in water, and all

want of one moment (to shave) gives place the next moment to the desire for food and this in turn soon loses its potency and is replaced by still other interests. It is this flux of living and often unpredictable values which any type of retrospective mechanics must in the very nature of things always fail to comprehend.

that goes with this complex of interests, than it is to smell and taste and eat an orange? Apparently they do not.

Such questions as these serve to focus attention upon the limitations of a quantitative scale in providing any idea of the real content and worth of a qualitative unique. Comparative value in quantitative terms cannot comprehend the qualitative characteristics of interests. In exercising preference and in actual behavior, each individual is not merely (whether consciously or unconsciously) balancing prospective durations and estimated intensities and integrations, but is likewise (and more importantly) choosing between interests or interest-groups as unique wholes. And even after an individual has chosen one course, the action-mechanism may take another. The main clue to the formulation of a hierarchy of individual and social values must apparently be looked for in preference and behavior, and in interests and values as qualitative wholes, rather than in any quantitative scale of relative intensities, durations, and number of relations.

CHAPTER XXVI

ECONOMIC AND RELATED ASPECTS OF VALUE

IN THE LIGHT OF our review of the constitution, varieties, complexes, and integrations of interests and values, we are now ready to inquire into the significance of those concrete manifestations that go by the name of political, legal, esthetic, moral, and, especially, economic values.

In modern critical literature, these manifestations are sometimes spoken of as "species" of value, but there would seem to be virtually as much danger in thus characterizing them as there has been found to be in using the term "social organism" in referring to social phenomena in general, for the "species" analogy tends to set up "classes" of value where there are apparently only "phases" of value.¹ In the same literature, furthermore, the word "phase" or "aspect" is also employed to cover the manifestations in question.² Since this is a preferable designation, free from the aforementioned pseudoanalogical difficulties, it is followed here.

It should be added in passing that there may be and probably are definite "classes" of value, possibly such as those relating to the "basic" instinctive dispositions of curiosity, security, self-seeking, sex and love; but it will not be our purpose to inquire into such "classes" in this volume.³

¹ Cf. Charles H. Cooley, "The Progress of Pecuniary Valuation," *Quarterly Journal of Economics*, Nov., 1915, p. 2, "The Sphere of Pecuniary Valuation," *American Journal of Sociology*, Sept., 1913, pp. 188-203, and "The Institutional Character of Pecuniary Valuation," pp. 543-555; likewise, sec. 146, below. Note, also, Cooley's tendency to use the organicistic analogy, in speaking of society, and to coat the object of interest with value in a way to which Perry rightly objects. Cf., also, Perry, "Economic Value and Moral Value," pp. 445, 450; and, chap. xix, above.

² Cooley, "The Progress of Pecuniary Valuation":

"The various kinds [of value] are . . . differentiated phases of a common life . . . largely aspects rather than separate things" (p. 4); "a whole with various aspects" (p. 5).

³ Cf. McDougall's "innate dispositions" and Thomas and Znaniecki's "desires" or "wishes," chap. iv, secs. 13-14, espec. p. 46, above; also, Edwin C. Hayes, "Social Values," *American Journal of Sociology*, Jan., 1913, on the "five ultimate values" (pp. 479-495).

Economic and related phases of value apparently present quite a different type of problem. Economic behavior is, to be sure, sometimes more or less completely colored by one or another value aspect; and the process of institutionalization tends to have a "splitting-off" effect, much as specialization tends to transform a man into what Emerson designates as nothing more than "a good finger, a neck, a stomach, an elbow."⁴ But the economic and related phases of value are, as such, no more separate classes or kinds of value than the facets of a diamond are separate. The purchase of a book, for example, is not as a rule an economic act solely. Entering into its acquisition, as we have seen, there may in addition be esthetic, moral, cognitive, religious, and other aspects of interest and thus of value.⁵ Even Mrs. Malaprop in her emphasis on the color of the bookbindings was motivated by more than economic considerations in her purchases.

It is just here that the realistically complex, heterogeneous, compound, qualitatively unique, and indivisibly whole characteristics of human interests and values must be kept in mind as against the fictitiously simple, homogeneous, elementary, quantitatively uniform, and atomistically divisible units of classical and neoclassical value theory. The latter do not in any sense comprehend the creative, intangible, variable, dynamic, diverse, and integrated qualities outlined in the last three chapters.

What in this unique complex of qualities should in any realistic appraisal be regarded as the economic aspect of value will become clearer as we proceed. At the moment all we need to hold in mind is that this aspect evidently involves the processes of industry, exchange, and trade or, in its essentially modern characteristics, a money price.⁶

SECTION 104. ECONOMIC AND MORAL ASPECTS

One of the contentions of classical value theory has been that economic and moral aspects of value must be kept distinctly separate. In line with recent tendencies toward a more realistic appraisal, the

⁴ Ralph Waldo Emerson, "The American Scholar," Phi Beta Kappa oration, Aug. 31, 1837, *The Complete Writings of Ralph Waldo Emerson* (New York, 1929), I, 25-26.

⁵ Perry, "Economic Value and Moral Value," p. 445; also, p. 280, above.

⁶ Cf. references to Perry in the following section (104), below.

necessity or the possibility of such a separation is generally denied, although it is not overlooked that variations among different value phases may be far from concurrent or synchronous "either in quantity or in sign." The main point here is that in this recent analysis the various value-aspects of a given act, as of the book purchase, are recognized as having "innumerable threads of cross connection." They all pertain to the given act, from which they cannot properly be isolated.⁷

Among other contributions, Perry makes a notable analysis of the interrelations of economic and moral aspects of value, although in doing so he suggests a dubious threefold gradation in the valuation process. The first of these gradations, the "strictly economic," he defines for the most part in the realistic sense already suggested. The definition is "summed up in the term 'wealth'" or "value-in-exchange." It concerns itself with "the diverse phenomena of industry and trade." It applies to "life only where it touches the market," and thus only where acquisitive rather than consumptive phases of interest are involved. This much we can in general accept, even though to many students Perry's omission of consumptive phases of interest in the "strictly economic" aspect may seem unduly restrictive.⁸

At the same time, where Perry seems to suggest that economic valuations in the "strict sense" are always crudely egoistic and fragmentary, each interest being satisfied as it arises regardless of other interests, one may be pardoned for objecting that this appears to be quite a different standard of classification from the market standard.⁹ "Crudely egoistic" or "fragmentary" is not necessarily synonymous with the "strictly economic."¹⁰ There is in reality no

⁷ Perry, "Economic Value and Moral Value," p. 446.

⁸ *Ibid.*, pp. 444-445, 451-453, 480, 485. Consumptive phases of interest do, of course, lie in the background. Actually to satisfy an interest, a thing has to be consumed. But before it can be consumed it must be acquired. Acquisition has a value which is dependent upon consumption, even though it is this dependent, acquisitive or possessive interest with which economics is primarily concerned. Economic value is thus indirectly based upon consumptive interests, which are, however, highly mediated both by acquisitive interests and by judgments. This is a far cry from economic utilities directly appreciated and enjoyed. ⁹ *Ibid.*, pp. 455, 481.

¹⁰ Cf. Henry W. Stuart, "Phases of the Economic Interest," in Dewey's *Creative Intelligence*, pp. 330-335.

necessary relation between these concepts, as we shall see, though it must be added that the tendency so to relate economics and egoism is rather widespread.

The question becomes still more important when we consider the second and third stages of Perry's gradation, which he designates as the prudential and the moral. In prudential valuation some integration ("less fragmentary") among a limited number of interests is assumed. In moral valuation, the integration is thought of as still wider and as proceeding in accordance with a broad rule or principle "designed to organize and harmonize" all the interests of a given individual. Prudence is thus "quasi-moral."¹¹

It is admitted by Perry that economic activity need not always be "strict"; it may often be "prudent." Thus "the ranges of economics and ethics overlap" in so far as prudence is involved, and this seems to be the case rather frequently. Perry makes a definite point of the relationship. The economic agent is assumed as a rule to exercise "prudence or shrewd calculation." He seeks "to do 'justice' to the various interests for which he is acting." He practices "the *virtue* of economy." He obeys the "precepts of foresight, thrift, and restraint."¹² All this we may likewise accept.

In comparing the prudent or "quasi"-moral with the "fully" moral, Perry's reasoning is again dubious, for he draws between these two gradations what appears to be an unnecessarily sharp line when he says: "There is the province peculiar to ethics which no mere economist shall defile." The economic agent is presumed to be able to act "prudently" but not "morally"; his foresight, it appears, can never be wide enough to comprehend the "general well-being of society." This seems to be a wholly arbitrary *obiter dictum*. The line between a quasi- and a more complete morality is surely not hard and fast. If an act tinged with an economic interest can rise above the strict or "fragmentary" point of view and achieve a "prudential" or partially moral outlook, why is it not proper to say that at times the act may become even more fully moral in its comprehension?¹³

¹¹ Perry, "Economic Value and Moral Value," pp. 476-481.

¹² *Ibid.*, pp. 444, 477-478.

¹³ *Ibid.*, pp. 444, 482-483. Note that "moral" and "ethical" are used more or less

The difficulties here encountered vanish with the already suggested differentiation between persons, acts, and phases or aspects of value. Perry would probably be among the first to deny that there are such things as economic and moral "men" inhabiting each person, unless the person be pathological in a "dissociated" sense.¹⁴ Nevertheless, he does appear to imply that people engage normally in exclusively economic acts at one time and in exclusively moral acts at another time, or that they have interests which are distinctly separated into economic, moral, and other compartments. The truth seems to be that acts or interests have economic, moral, or other aspects, in the light of which circumstance their relationship can be the more clearly understood. *Acts or interests* may be crudely egoistic and fragmentary, prudentially interrelated, or more widely integrated. Such a classification is useful in analyzing the moral aspect of value. But if these acts or interests do not touch the market or involve purchase and sale they have no economic aspect at all, even though they are ever so crudely egoistic. On the other hand, be the acts or interests ever so moral, if they have pecuniary features they must be reckoned as having an economic aspect.

Despite certain questionable lines of argument, however, Perry clearly indicates that, in so far as prudence and business sagacity go together, moral and economic aspects of value are conjoined. Sagacious business enterprise is the typical situation unwittingly taken for granted by classical economics. Ordinary business behavior is doubtless not nearly so prudent as is thus generally assumed; but even "crude egoism," provided it is deliberate, may be regarded as a rule of conduct, and to that extent it is also quasi-moral.

Furthermore, in so far as economics may be regarded as a normative discipline, there is always a moral or quasi-moral rule in the background. Perry presents an interesting list of such implied economic norms, to wit:

- (1) The implied norm may be that each factor in production (labor, capital, land, and enterprise) should get the "equivalent" of what it "contributes."

synonymously in these pages and without any customary religious or "pharisaical" implications.

¹⁴ Cf. Morton Prince, *The Dissociation of a Personality* (2d ed.; New York, 1913).

(2) The implication may be that labor should be paid in proportion to "exertion" or "sacrifice."

(3) The implication may be that distribution should be "in accordance with the absolute intensity of needs."

(4) The implication may be that strictly business valuations should be replaced by human valuations.

(5) The implication may be that distribution should conform to existing class distinctions, "thus perpetuating a cultivated leisure class and a proletariat to do the chores."

(6) The implication may be that the commercially efficient should be allowed full freedom in the interests of national supremacy or of the survival of the "fittest."

(7) The implication may be that a "work-bench" or "root-hog-or-die" philosophy should be substituted for a "pig-trough" philosophy.¹⁵

We are constantly confronted with such normative assumptions. In the past, economic theory has been largely unaware of its ethical implications or else it has read into things-as-they-are a wishful thinking about things-as-they-might-be. For the future, it will be helpful if the economic theorist determines at the outset what his moral or quasi-moral presuppositions are, for the economic and the moral are generally very closely related.

In another penetrating philosophical analysis, it is stated by Stuart that "ethics and economic theory, instead of dealing with separate problems of conduct, deal with distinguishable but inseparable stages belonging to the complete analysis of most, if not all problems." This statement is made at the conclusion of a study of customary and novel aspects of economic behavior, to be taken up in the next section. Stuart finds that even routine purchases often exhibit ethical implications, from a willingness to pay higher prices for commodities produced under wholesome labor conditions to the acceptance of legislation making such conditions or a living wage mandatory for all industry.¹⁶ And as for novel acts, they apparently always have an ethical import.

SECTION 105. NOVEL AND ROUTINE ASPECTS

Here and there in preceding pages the importance of the novel, the dynamic, the evolutionary, the changing in human behavior, has

¹⁵ "Economic Value and Moral Value," pp. 483-485.

¹⁶ *Op. cit.*, pp. 325-335, 349.

been given passing emphasis. Possibly as significant a distinction as any for constructive economic theory is the one between those phases of acts or interests that are new and those that follow an established routine.

Economic theory of the past has dealt almost exclusively with routine behavior, with "pleasures," "utilities," or "satisfactions," whose extent and character were assumed to be completely known in advance and whose alleged quantitative variations could thus be calculated and nicely equilibrated. The shortcomings of attempts at precise calculation have already been sufficiently stressed, but not enough has thus far been said about the significance, for constructive social theory, of the novel or experimental in human behavior.¹⁷

From the social point of view, much of what we mean by progress is here implicated. On the material side alone, "in a relatively brief period of time, the steamship, railroad, automobile, X ray, electric light, telegraph, telephone, synthetic chemical products, and the mass production of watches, cameras, innumerable electrical appliances, and a thousand and one other recently created necessities and comforts, have brought within the reach of the humblest citizen commodities that but a few years back could be enjoyed by the very rich only, or were not available at all." This has meant for humanity a tremendous increase of new, previously unexplored values.¹⁸

As for the individual, not only is he today enjoying many "utilities" which his grandfather had never heard of, but the "undone vast" is for him, as it was for his forebears, ever beckoning. It is the anticipated zest of the new or unexplored which has in the main made human life worth while. The landmarks need no stressing; they are appreciated by all. Starting to school, experiencing a first love affair, being a freshman at college, getting married, welcoming the first-born—these have meant and will continue to mean the revolutionizing of individual values in every new generation. It is not so easy to perceive a similar metamorphosis of interests and

¹⁷ Stuart gives a notable emphasis to this distinction (*ibid.*, pp. 282-293, 304-305). Cf., also, sec. 97, above, referring to the views of Hobson.

¹⁸ Mayer, *The Seven Seals of Science*, p. 3; Stuart, *op. cit.*, pp. 288-293.

values, on a minor scale, in day-to-day occurrences; but innumerable such occasions crowd upon us nevertheless. Every day, people are purchasing what to them are new commodities, are seeing new motion pictures, are reading new novels, are hearing new songs, are making new friends, are having new experiences of one kind or another, some of which make for a general reordering of interests and values. Life may be made up largely of routine, but it is not this that secures the focus of our "interest" but rather the novel and the unexplored.¹⁹

Here is a situation deserving of more than offhand attention in economic thought. The routine, no matter how much of it we have, is relatively uninteresting. The novel, little of it though there be, is full of interest and thus of value, sometimes to an exciting degree. Pure routine, moreover, is largely unconscious, mechanical, carried on without deliberation. The novel, on the contrary, usually arouses full awareness; it is experimental, and this generally implies deliberation. Classical theory, here as elsewhere, has attempted to unite uncombinable elements in human behavior. It has taken mechanical or routine activity and has invested it with the deliberation and choice which in reality belong mainly to the conscious and the novel.

By this time there may be a suspicion in the mind of the reader that there is something lacking in the foregoing analysis. If there is such a suspicion, it is probably because of the continued tendency to think in terms of "classes" of value where "phases" or "aspects" are the more appropriate concepts. It certainly leads nowhere to attempt to divide human behavior into routine acts or interests on the one hand and novel acts or interests on the other. In the first place, even in the most novel of experiences there is always something of the routine; and into the most humdrum of occurrences the novel is at any time likely to penetrate. Within the novel pattern of taking a first airplane ride, there are the routine aspects of entering the machine, taking a seat, having a word with a fellow passenger, looking out the window, and the like, which are more or less lost to awareness in the thrill of the experience as a whole. On the other hand, the matter-of-fact business of crossing a street may suddenly become anything but routine should the raucous blast of

¹⁹ Stuart, *op. cit.*, pp. 318-321.

an automobile horn burst without warning upon the ear. Secondly, the novel experience upon repetition becomes more or less routine; sometimes almost completely so; in other instances only slightly, since there are some experiences that are never fully explored, that are always to some extent new. Outstanding among the latter are the experiences of love and friendship, of the quest for knowledge, of the blazing of paths into the unknown. Thirdly, and probably of still greater importance for economic theory, are the recurring human appetites and desires which are satisfied only for the time being and which in their constant reassertion bring additional novelties in further experience.²⁰ It is more accurate, then, to speak of novel and routine aspects of human behavior than to speak of novel and routine acts, motives, or dispositions as such.

Certain philosophical questions centering upon free will versus determinism and upon specific versus general instincts or interests, need not concern us here. To what extent the new must be related to the old, in order to become an object of interest, and to what extent it is desired for its own sake, are still open questions. One thing in this connection is sure. In so far as an interest has novel aspects, the satisfactions which may accompany its fulfillment cannot be predicted. Retrospective analysis is inapplicable here. What we do is make an exploratory comparison between the unknown future, in which we take an interest because it is part of human nature to reach out beyond the present, and the known past, whose satisfactions can be more accurately weighed. If in "experimental fashion" we elect the new, no one can say beforehand what the result will be. It may be beyond expectation; it may be fraught with disillusionment. In any event, man's decision to explore the new cannot be thought of in terms of a "balancing of utilities" upon the "margin" or upon anything else. After the event, a retrospective glance may be taken and a thought given to whether or not the venture was "worth while"; but such a backward glance is quite a different matter from any alleged advance calculation or balancing of utilities.²¹

It now becomes even more obvious—to link the analysis of the present section with that of the preceding one—that the economic

²⁰ Cf. *ibid.*, pp. 310-312.

²¹ *Ibid.*, pp. 285-288, 294-305.

aspect of interest or value cannot properly be thought of as restricted to any arbitrarily assumed level of activity such as "gaining a living," "satisfying material wants," "pursuing egoistic ends," or as pertaining to the "unmoral" or the routine alone. It pertains to all of these and possibly to other phases, or it may pertain to none of them, depending wholly upon whether a market or price transaction is involved. Wherever in modern life there is a money price or its equivalent, there the economic aspect of interest and value is manifested.²²

SECTION 106. VALUE-IN-EXCHANGE AND PRICE

If price is to be regarded as of the essence of the economic aspect of value, what should be regarded as its proper relationship to value-in-exchange, a concept which has held so prominent a place in the development of economic theory? And what of the related concept of rate or ratio of exchange?

So long as "value-in-exchange" was presumed to possess some primary, esoteric significance from which "price" was thought to be derived in an equally esoteric manner, there could be no realistic answer to such questions. The credit for dissipating this mysticism should probably go to Allyn A. Young, as one of the important contributions which he made to recent advances in economic thought.²³ The present writer agrees fully with Young's suggestion that the abstract idea of exchange value is probably "nothing more than a generalization of the simpler idea of price." It would in fact seem that "value-in-exchange" and "price" are virtually identical terms, that price is the better concept to employ in expressing the amount of money given in exchange for goods or services, and that a ratio or rate of exchange is merely a relationship between money and commodities (or services) expressed in terms of price, due regard being given to the peculiarities of the particular money medium used in expressing the relationship. In all such connections, having in mind the complex nature of the concept "value," it would doubtless lead to greater clarity in analysis and no loss in precision

²² *Ibid.*, p. 352.

²³ Cf. "Some Limitations of the Value Concept," *Quarterly Journal of Economics* May, 1911, pp. 409-428.

if the term "value-in-exchange" were abandoned entirely and "price" came to be adopted as the distinctive term for the field of economics. There is already, of course, a very definite movement in this direction in the rise of so-called "price economics," but the foundation for this movement has not thus far been systematically developed. The movement has, in fact, proceeded largely in terms of a protest against all theoretical considerations in economics, which is hardly any kind of constructive foundation.

Economics concerns itself with problems of price in two important respects: first, with price-making, which is to say, with the direct and indirect effects upon price of changes in production and consumption and with other influences and tendencies that on the one hand make for a conventionalized system of prices and on the other hand for changes in the system; secondly, with general price levels, that is, with movements or cycles representing the whole upward and downward trend of prices. In both these respects, ordinary commodity prices are not the only or possibly even the most important ones involved. There are also the prices of stocks and bonds, of foreign exchange, of transportation, of labor, land, capital, and management, and of governmental services.²⁴

Thus viewed, the price aspects of value may be examined realistically and dispassionately, uncolored by any mystical ideas that carry over from the preconceptions of the past and cluster around the more cumbersome term "value-in-exchange." Bound up with the latter are such classical imponderables as: money regarded as a mere mechanism for the exchange of goods in a barter economy; economic forces in static equilibrium; marginal satisfactions and marginal costs; and the hypothetical rational choices of the utilitarian calculus. "Price economics" makes for the possibility of shedding these unreal assumptions without sacrificing anything of fundamental importance for the development of a scientific discipline. With a proper understanding of generic value, of economic and related aspects, of the routine and the novel, and of the relationship

²⁴ Allyn A. Young, "Price," *Encyclopaedia Britannica* (14th ed.; New York, 1929), XVIII, 468-469. Cf., also, Charles R. Whittlesey, "Value Changes: The Growth of a Concept," *American Economic Review*, June, 1930, pp. 231-234, for a brief historical sketch of the origin of the fourfold classification into *stuff*, *form*, *place*, and *time* values (or prices) with an emphasis upon certain phases bearing on prestige value.

of these to the price structure and the market, there should come the formulation of more realistic and scientific hypotheses in the field of economics.

SECTION 107. HUMAN INTEREST VERSUS INSTITUTIONAL ASPECTS
OF VALUE

Another important consideration for constructive economic theory would seem to lie in the distinction between human-interest and institutional aspects of value.²⁵

Human-interest aspects may be regarded as pertaining to the basic traits of human nature. What these are is, of course, still in process of being determined, although we may say that the need for food, security, love, adventure, and the quest of the good, the true, and the beautiful, are doubtless among them.

At any given time and place, also, the expression and fulfillment of man's desires are conditioned by the prevailing modes of the day, by the ignorance and superstition with which he is surrounded, by the state of the arts and the sciences, and by the opportunities afforded for self-expression. His interests and values are mediated for the most part by existing conventions. The mediatory process is largely unconscious. It works through suggestion, emulation, and habit, from which general fact it is easy to understand how important nonconformity becomes in the fulfillment of man's desires, for it is the exceptional individual who changes established ideas, who shows the insufficiency of prevailing judgments, who sets a new style, who discovers a better way of fulfilling desire. Thus the habitual and the creative are in eternal collision, change and progress vie with the conventional, and the prevailing ideas of one time and place very slowly give way to those of another time and place.

Were this the whole story of the process of social change, however, there would hardly be any need for distinguishing between human-nature and institutional phases of value. The important additional factor here is the *tenacity* of tradition, especially where this has become "institutionalized," that is, organized into a virtually self-

²⁵ Cf. Cooley, "Valuation as a Social Process," *Psychological Bulletin*, IX (Dec. 15, 1912), 441-450; also, "The Institutional Character of Pecuniary Valuation," pp. 543-555.

perpetuating system, against which advancing knowledge and changing sentiments avail little, except on "revolutionary" occasions.

Even unorganized tradition is tenacious. What is customary in one generation is handed down from parent to child and thus to succeeding generations. To be effective, any change must receive wide public notice and approval. It will as a rule have to be spectacular, and there is little of that in the advancement of knowledge. The spectacular change may, as well as not, be a peculiar style in men's clothes set by the Prince of Wales, which, if it happens to be carried back home by a small-town notable visiting in London at the time, may be perpetuated in his community long after succeeding princes have set quite different fashions.

Tradition when organized will perpetuate itself almost indefinitely. It then becomes truly institutional and affects the valuation process in ways that deserve special attention. Institutional phases of value are survival phases, vestigial aspects left over from the past. What at one time were thought to be human-nature aspects enter into them, but these aspects have often been so transformed or crystallized in the process of institutionalization that they are in conflict with present-day knowledge and miss "much of the breath and spontaneity of our more immediate life."²⁶ And whether or not this be the case, the institutional phases are probably always more pervasive than current human-nature phases in the valuation process.

The church, the state, the law, the market and price system are examples of modern institutions; and the distinctions between the ecclesiastical and the religious, the political and the statesmanlike, the legal and the just, the commercial and the economic, suggest the relationship to respective human-nature phases of interest and value.

Vast institutions like the church and the state are today subdivided into subordinate institutions, often conflicting, as in the case of Roman Catholic and Protestant organizations or in that of monarchical, democratic, Fascist, Nazi, and communistic states. Institutions have their special ceremonials and symbols, as the creeds and sacraments of the church or the threefold checks and balances of the United States Government. They also have their special

²⁶ Cooley, "Valuation as a Social Process," p. 445.

classes of priests or politicians or other devotees to perpetuate the traditional order. And what is thus true of the church and of the state apparently applies with equal force to the institution of the market and price system, which has likewise had a long tradition and development, from prehistoric times to the present day.

SECTION 108. PRESENT HIGHLY INSTITUTIONALIZED MARKET
AND PRICE ASPECTS OF VALUE

That the present-day market and price system is highly institutionalized and that it does not merely represent simple human-interest phases of value is upon reflection readily apparent. Even the commonest economic goods, such as food, demonstrate this. With us, bread is an article of necessity; with some peoples, it is not. Its present use in the form of biscuits or spoon bread, for example, is based largely upon opinion and local custom. As for coffee, tea, and candy, their use is still more highly conventionalized. Prepared cereals, such as corn flakes, have a special vogue today based upon an opinion that has been molded largely by advertising in comparatively recent times. And so it is with many other well-known commodities which might be called to mind. Market valuations as they now exist cannot be comprehended except in terms of an institutional process which in the course of time has created them and which perpetuates them through force of habit and precedent based as much (if not more) upon business interests as upon human-nature interests. "What we are willing to spend money for, as individuals, as classes, as nations, can be understood only by a study of historical influences and of their interaction and propagation at the present time."²⁷

Competition or laissez faire has not supplanted custom in these matters, especially the custom of feudal status which formed the basis of the medieval economy. Rather has it taken custom as it found it; and in modern times, by the adroit suggestion of large-scale advertising, custom has still further institutionalized economic practices in the primary direction of the greatest profit for the business-man.²⁸

²⁷ Cooley, "The Institutional Character of Pecuniary Valuation," p. 544.

²⁸ Cf. Stuart Chase and F. J. Schlink, *Your Money's Worth* (New York, 1928);

It is not meant to imply here that the institutionalized structure of the market has departed entirely from human-nature phases of interest, for that could hardly be. Nevertheless, the institutional results as they now appear have become so highly mediated and elaborated by historical and business factors that the direct reflection of human-nature phases of interest seems relatively meager. People will always need and want food, shelter, clothing, amusements, intellectual and spiritual advancement; and it is natural for esthetic, moral, and other phases of value to be combined with economic phases in the commodities demanded. But, without being an advocate of a return to the so-called "simple life" or to a "state of nature" or to "nudism," one can readily perceive (in such developments as our elaborate meals of many courses, our uncomfortable medieval furniture and peas-in-a-pod apartments surrounded by nerve-racking noises, our slavish adherence to customary dress, our glut of an insipid type of "movies," our roadhouse dissipations) that there is here a wide divergence from simple human-nature aspects of value bearing upon wholesome pleasures and the durable satisfactions of life.

It is about time to scotch that part of the apologetics for things-as-they-are which insists that, in the respects mentioned, people simply get what they want. In the first place, "want" is an ambiguous concept; in the second place, it is highly mediated; in the third place, people get into the habit of "wanting" what their elders have seemed to want and what everyone around them appears to want; in the fourth place, where there are no simple human-nature alternatives, people have to "want" what is offered them. In short, it is not so much that people get what they "want" as that they learn to "want" what they can get. It has been widely assumed, for example, that the people of New York City generally prefer the litter and the tinsel-show of their Coney Island, for how could it otherwise exist? Recently a new beach for New Yorkers was opened, Jones Beach, where simple amusements and cleanliness are essential parts of a wholesome recreation program, planned by the state and not by com-

Arthur Kallet and F. J. Schlink, *One Hundred Million Guinea Pigs* (New York, 1933); Mary C. Phillips, *Skin Deep, the Truth about Beauty Aids* (New York, 1934). Cf., also, Part V, chap. xxvii, below.

mercial concessionaires. All one needs to do is to note the crowds that go to Jones Beach and observe their natural joy and the care they take in these wholesome surroundings, to realize the fallacy in the commercial slogan that people generally "get what they want."

What a man thinks he wants to purchase is almost always determined for him in modern society by the market and price institution, a vast and complicated system, deeply rooted in the past, grown enormously in recent times, possessed of incalculable prestige, almost invariably conducted for the primary benefit of the businessman, and bolstered by the insistence of high-pressure salesmanship. Such an institution cannot be "saddled upon human nature without further analysis," as the classical economists were wont to do; nor can it be understood from a purely individualistic point of view, as classical theory was also prone to assume that it could. Even though individual nonconformity continues to play an important part in preventing institutional phases of economic value from getting too far away from human nature, nevertheless market influences are today so insidious and so vested that it requires much more than an occasional individual revolt either to remove the accretions or to shape the institution nearer to the satisfaction of fundamental human needs.²⁹

²⁹ Cf. Cooley, "The Institutional Character of Pecuniary Valuation," pp. 546-548.

PART V

HISTORICAL AND CONTEMPORARY
ECONOMIC FUNDAMENTALS

CHAPTER XXVII

THE DEVELOPMENT OF ECONOMIC INSTITUTIONS

UNDERLYING THE pervasive pecuniary characteristics of the present-day market, there is the process of exchange or transfer of goods and services, a process which has not always expressed itself and even now does not always express itself in money or price terms. Modern anthropological conceptions of primeval savagery differ from earlier Garden-of-Eden pictures of it. Nevertheless, the customary belief in a development in terms of a household economy, then barter economy, then money economy, still possesses a certain merit if not too rigidly interpreted to represent sharply differentiated historical stages. As a matter of fact, today both household and barter economies exist along with the more highly developed and incidentally more fragile money economy—more “fragile” because of the danger of complete or partial disruption in a period of national or world crisis.¹

SECTION 109. HISTORIC TRANSFERS OF GOODS AND SERVICES— FORCED AND FREE

For an understanding of the probable economic activities of early peoples, we examine accounts of their dwelling places, especially of the natural caves in which some of them lived. In cave decorations found in France, Spain, and other countries evidence is presented of very early exhibitions of social consciousness and of interests considerably higher than the mere satisfaction of bodily wants. From various other bits of evidence we surmise that before the day of cave dwellings man roamed homeless in search of food, fighting for his existence and protecting his offspring as best he could. Hunting and fishing must thus have been among his first occupations,

¹ Cf. U. S. Bureau of Agricultural Economics, “Barter and Scrip in The United States: Selected References,” Agricultural Economics Bibliography No. 40, *United States Department of Agriculture*, Washington, D. C., Feb., 1933.

the domestication of animals and the tilling of the soil being necessarily more advanced stages in economic organization.²

With greater stability of human existence, came gift-giving and sharing within the fairly closed circle of the early household; and, as families became organized into tribes, there also developed voluntary exchange by barter between closely related households and tribes. These facts are today generally recognized. What is usually either overlooked or not understood in this connection is that there was in addition a different type of "giving" in those early days, namely, forced or involuntary transfers of goods through pillage or tribute and of services through chattel slavery, all of which is probably just as much a part of economic development as is voluntary exchange by barter.³

Although modern anthropology presents a realistic picture of the life and work of present-day savages, care must be exercised in interpretation in that these "moderns" are not true representatives of remote ancestry; that is, their relations with environment and neigh-

² Cf. John L. Avebury, *Prehistoric Times, as Illustrated by Ancient Remains and the Manners and Customs of Modern Savages* (7th ed. rev.; New York, 1913); Thomas R. E. Holmes, *Ancient Britain and the Invasions of Julius Caesar* (Oxford, 1907), pp. 13-300; Jacques J. M. de Morgan, *Prehistoric Man* (New York, 1925), with an excellent foreword on the hand and the tool by Henri Berr, pp. 153-159, *passim* (see, also, his bibliography); Franz C. Müller-Lyer, *The History of Social Development*, tr. Lake and Lake (London, 1920), pp. 144-149; Georges Perrot and Charles Chipiez, *Histoire de l'Art dans l'Antiquité* (10 vols.; Paris, 1882-1914); Herman Schneider, *The History of World Civilization* (2 vols.; New York, 1931), I, 5-34; William J. Solas, *Ancient Hunters* (3d ed. rev.; New York, 1924), pp. 210-219, 271, 465-466, 536-537; John M. Tyler, *The New Stone Age in Northern Europe* (New York, 1921) (see, also, his bibliography); Eugène E. Viollet-le-Duc, *Histoire d'Habitation Humaine* (Paris, 1875), also English trans. by Bucknell, 1876.

Besides these references, see: Friedrich List, *Das Nationale System der Politischen Ökonomie* (Stuttgart, 1842), English trans. by Lloyd, 1909; Müller-Lyer, *op. cit.*, pp. 319-331; Myres, "The Beginnings of Science," in Marvin's *Science and Civilization*, pp. 11-12; Georges F. Renard, *Life and Work in Prehistoric Times* (New York, 1929); Grafton Elliot Smith, *Human History* (New York, 1929); Wissler, *Man and Culture*.

³ Cf. Karl Bücher, *Industrial Evolution*, tr. S. M. Wickett (New York, 1901), pp. 1-184; Raymond W. Firth, *Primitive Economics of the New Zealand Maori* (New York, 1929), pp. 386-426, and his bibliographical references at the end; Bronislaw Malinowski, "The Primitive Economics of the Trobriand Islanders," *Economic Journal*, March, 1921, pp. 1-16, and *Argonauts of the Western Pacific* (New York, 1922). Cf., also, Hugh O. Meredith, *Outlines of the Economic History of England* (London, 1908), p. 19; and references on "Tribute, Slavery and Serfdom," below.

bors have today reached a state of relative equilibrium and their customs have become modified by those of the modern world.

Gift-giving among primitives today, as among other "moderns," is chiefly motivated by sentiments of friendship or obligation. In its "pure" state there was doubtless no expectation of a material *quid pro quo* in return. But in the course of time "trading" motives have entered the gift practice, and among modern primitives an "adequate" material return seems in general to be expected. Nevertheless, although "trading" motives have come to be implied in the gift custom, these are not necessarily of its essence, as is sometimes inferred.⁴

Economic barter seems to have arisen out of motives somewhat different from those of gift-giving, a "proper" exchange having presumably been expected from the very beginning. Such barter resembles gift-giving in that valuable commodities or services are exchanged, presumably voluntarily, in so far as the practice is observable in modern stabilized savagery. Two types of voluntary economic barter are still generally in use, the "silent" and the "vocal." Silent or dumb barter is evidently of great antiquity and may be illustrated in the practices of many savage tribes today, while vocal barter (a *vis-à-vis* exchange) is that which economists usually have in mind in their writings on the subject. Modern primitives also engage in itinerant buying and selling, hold markets, and send out trading expeditions. Their mediums of exchange are generally those which have existed from time immemorial and consist of cloth, seashells, cocoanuts, and similar commodities.⁵

The motive behind voluntary primitive exchange seems fairly clear. It is the desire to obtain coveted objects not procurable in a given locality or by particular local skills. Little of the rational and much of the emotional enter into the exchange transactions of

⁴ Cf. Firth, *Primitive Economics of the New Zealand Maori*, pp. 386-426; Müller-Lyer, *op. cit.*, pp. 160-161.

⁵ Cf. Philip J. H. Grierson, *The Silent Trade* (Edinburgh, 1903), including his bibliographical references at the end; Bruno Hildebrand, *Die Nationalökonomie . . . und Andere Gesammelte Schriften* (Jena, 1922), pp. 325-357; Elizabeth E. Hoyt, *Promiscuous Trade, Its Psychology and Economics* (London, 1926), pp. 115-116, 153-149; Jules F. Toutain, *The Economic Life of the Ancient World*, tr. from the French by Dobie (New York, 1930), pp. 20-28, 62, 199.

present-day savages, the cupidity of both parties and the weaknesses of buyer or seller playing a large part in every trade.⁶

Voluntary trade tells part of the story of economic development and of the rise of the market institution and price system. Where relative stability has been attained, as it has in modern savagery, there can be satisfactory *quid pro quo* exchanges. But in early as well as in later times the stronger usually profited by the poorer bargaining power of the weaker. Thus other significant factors in the rise of economic institutions are exhibited in the enforced transfers of goods and services from the lower to the upper strata of human society through the ages, as a result of tribute, slavery, and serfdom.

The yielding and demanding of tribute may be considered in part an outgrowth of primitive gift exchange. Gifts were and are sometimes propitiatory in nature, or they may be exacted of the weaker by the stronger after a conflict. The derivation of the word "tribute" does not apparently imply the idea of submission or subjugation, although the word has generally come to bear these connotations today. Some of the spoils of war, the "protection" money demanded by brigand, pirate, or gangster, voluntary offerings to avoid unpleasantness of one kind and another—these are all species of tribute as now commonly understood. As far back as records go, tribute has been taken for granted both in demand and rendition. It is historically an important element in the transfer of goods and services between classes, tribes, peoples, and nations.⁷

⁶ Cf. Raymond W. Firth, "Some Features of Primitive Industry," *Economic History* (supplement to *Economic Journal*), I (1926-29), 13-22; P. W. Koppers, "Die Ethnologische Wirtschaftsforschung," *Anthropos*, X and XI (1915-16), 611-651, 971-1079; Olivier Leroy, *Essai d'Introduction Critique à l'Étude de l'Économie Primitive* (Paris, 1925); Marcel Mauss, "Essai sur le Don," *L'Année Sociologique*, n. s., I (1923-24), 30-186; Alfred R. Radcliffe-Brown, *The Andaman Islanders* (Cambridge, England, 1933); Henry Ling Roth, "Trading in Early Days," *Bankfield Museum*, Note No. 5 (Halifax, 1908); Richard Thurnwald, "Die Gestaltung der Wirtschaftsentwicklung," in *Hauptprobleme der Soziologie; Erinnerungsgabe für Max Weber*, ed. Melchior Palyi (2 vols.; Leipsic, 1923), I, 273-333, his *Economics in Primitive Communities* (Oxford, 1932), and his *Die Menschliche Gesellschaft in Ihren Ethno-soziologischen Grundlagen* (5 vols.; Berlin, 1931-34), III, 112-205.

⁷ Cf. Tenney Frank, *An Economic History of Rome* (2d ed. rev.; Baltimore, 1927), pp. 92, 136-137, 371-373, 442; Fritz Heichelheim, "Tribute," *Encyclopedia of the Social Sciences*, XV, 102-104, together with his references bearing upon Greek, Roman, medieval, Chinese, German, Italian, and Russian experience; and Edmund H. Oliver, *Roman Economic Conditions* (Toronto, 1907), pp. 50 ff., 195.

Slavery has played an even more significant role in the organization of economic institutions, developing hand in hand with civilization from the level next above the hunter-fisher. Until fairly recent times, irksome toil has almost always been performed by slaves or near-slaves. In the rise of civilization, priestly classes sometimes organized a captive group into a slave class, while military chieftains usually held slaves as individual possessions, selling to others those they did not need. Pastoral and agricultural development was originally greatly accelerated by means of the enforced labor of captive peoples. This is well illustrated as far back as ancient Egyptian and Babylonian civilizations.⁸

Homer wrote of ancient Greek slaves and their work. In historic Greek times slavery had already become an hereditary institution. The labor was oppressive, and the treatment given the average Greek slave was harsh. In Rome, the system was extended as the Empire expanded. Slaves were used on public works, as well as in tilling the soil and in numerous activities about the household and in the professions and the arts. The number of slaves in the Empire seems finally to have far exceeded the number of freemen.⁹ During

⁸ For data on slavery see: Reginald H. Barrow, *Slavery in the Roman Empire* (London, 1928); William Blair, *An Inquiry into the State of Slavery amongst the Romans* (Edinburgh, 1833); August Boeckh, *The Public Economy of the Athenians* (English trans. from 2d German ed.; Boston, 1857); William W. Buckland, *The Roman Law of Slavery* (Cambridge, England, 1908); Auguste Comte, *Système de Politique Positive* (4 vols.; Paris, 1851-54), Vol. III; Numa D. Fustel de Coulanges, *Recherches sur Quelques Problèmes d'Histoire* (Paris, 1885); David Hume, "Of the Populousness of Ancient Nations," in *Essays Moral, Political, and Literary* (2 vols.; London, 1875), I, 381 ff.; John K. Ingram, *A History of Slavery and Serfdom* (London, 1895); Charles J. M. Latourneau, *L'Évolution de l'Esclavage* (Paris, 1897); Paul Louis, *Le Travail dans le Monde Romain* (Paris, 1912), tr. Wareing in 1927; Frederick J. D. Lugard, *The Dual Mandate in British Tropical Africa* (London, 1923); Isaac Mendelsohn, *Legal Aspects of Slavery in Babylonia, Assyria, and Palestine* (Williamsport, Pa., 1932); Herman J. Nieboer, *Slavery as an Industrial System* (2d ed. rev.; The Hague, 1910); Mikhail I. Rostovtsev, *The Social and Economic History of the Roman Empire* (Oxford, 1926); Rachel L. Sargent, "The Size of the Slave Population at Athens," *University of Illinois Studies in the Social Sciences*, XII (1925); Henri A. Wallon, *Histoire de l'Esclavage dans l'Antiquité* (3 vols., 2d ed.; Paris, 1879); Alfred Wiedemann, *Das Alte Ägypten* (Heidelberg, 1920); cf., also, articles on primitive, ancient, medieval, and modern slavery, by Bernhard J. Stern, William L. Westermann, Melvin M. Knight, Mary W. Williams, and Ulrich B. Phillips, in *Encyclopedia of the Social Sciences*, XIV, 73-92.

⁹ Blair, *op. cit.* More recent authorities (e.g., Barrow, Frank, Louis, Sargent)

the Roman conquests the lot of the slave became increasingly hard, and free labor was so frowned upon and restricted that it virtually ceased to exist. With the decline of Roman power, however, slaves became scarcer and proportionately more valuable. When financial distress grew general, the master permitted his slaves to buy their freedom, but the manumitted status of the latter remained in money terms at least as profitable to master as to man. At the same time the crumbling Roman state progressively degraded the status of the free laborer and made many of his services hereditary. Through taxes, fees, rents, and tolls, the free workers and the manumitted slaves were finally consolidated into one semiservile class.¹⁰

Serfdom is in essence semislavery, in which the person or household may be relatively independent but in which the economic condition is vassal. It exists wherever the dominant group is not strong enough to reduce subjugated people to chattel slavery or finds it easier to tax than to enslave. Roman serfdom was in general of this incomplete type of enslavement, tribute of one kind and another being exacted, first in peasant services and payments in kind, later in the form of more or less equivalent money remittances. Feudalism and medieval serfdom followed the same general pattern.¹¹

The foregoing review of the historical incidence of tribute, slavery, and serfdom will serve to give some indication of the importance, in the development of economic customs and institutions, of the nonvoluntary transfer of goods and services from subject groups and peoples to conquering overlords. Down through medieval times the voluntary exchange of goods took place in large part between the conquering masters or in their behalf. The goods thus exchanged

tend to cast doubt upon any such great excess of slaves in antiquity.

¹⁰ Cf. Ingram, *op. cit.*, pp. 71-85.

¹¹ For general references regarding serfdom, besides the works (espec. by Wallon and Fustel de Coulanges) already noted, see: Joseph L. A. Calmette, *Le Monde Féodal* (Paris, 1934); Ivan E. Engelman, *Die Leibeigenschaft in Russland* (Leipsic, 1884); Gustave Glotz, *Le Travail dans la Grèce Ancienne* (Paris, 1920), tr. M. R. Dobie in 1926; August Meitzen, *Siedlung und Agrarwesen der Westgermanen und Ostgermanen* (3 vols.; Berlin, 1895); James Westfall Thompson, *An Economic and Social History of the Middle Ages (300-1300)* (New York, 1928), pp. 699-764; Paul Vinogradoff, *The Growth of the Manor* (3d ed.; New York, 1920); Paul M. Viollet *Précis de l'Histoire du Droit Français* (3d ed.; Paris, 1905); Georg Waitz, *Deutsche Verfassungsgeschichte* (8 vols.; Kiel, 1844-78).

were not the fruit of the masters' own productive labor but of that of their slaves and serfs and other beasts of burden; or the goods were secured by plunder and tribute. Such surpluses as the dominant classes had left after their immediate needs had been filled were exchanged for commodities and services to satisfy remoter desires and appetites, for exotic oils and spices and adornments brought from afar. And the exchanges thus effected were made on no more rational or equitable terms than in the acquisition of the original tributary surpluses themselves—avarice, cupidity, and greed being for the most part pitted against the fruits of exploitation and robbery. Such were at least some of the important accompaniments of the development of the early market and of exchange relationships.¹²

SECTION 110. THE DEVELOPMENT OF SYSTEMS OF EXCHANGE

It is far from true, as sometimes stated in economic literature, that "there was virtually no exchange and hence little need for money" before medieval times, or that handicraft, specialization, and commerce are distinctively modern inventions. The ancient world had in fact many of the economic customs and institutions which exist in our own day—coinage, currencies, credit, investment, business specialization. Such activities were then completely controlled by a very small group (who increased their wealth not only by ordinary business practices but also by pillage, plunder, tribute, slavery, and other forms of enforced transfers of goods and services). Ancient business was, nevertheless, highly organized in the modern sense.¹³

¹² For further details covering the material sketched in this section, see Joseph Mayer, "The Background of Modern Exchange," *Social Science*, Oct., 1939, pp. 357-364.

¹³ Cf., for example, Fairchild, Furniss, Buck, *Elementary Economics*, I, 43 f.; also, Percy Gardner, *A History of Ancient Coinage* (Oxford, 1918), pp. 67-68, 164-185; Melvin M. Knight, *Economic History of Europe* (New York, 1926), pp. 18, 28, 43; William S. Lindsay, *History of Merchant Shipping and Ancient Commerce* (4 vols.; London, 1874), I, 1-24; Mitchell, *Business Cycles*, pp. 66-67; Mikhail I. Rostovtsev, "The Hellenistic World and Its Economic Development," *American Historical Review*, Jan., 1936, pp. 231-252; Toutain, *The Economic Life of the Ancient World*, pp. 31-32, 71-79; George Unwin, *Studies in Economic History*, ed. R. H. Tawney (London, 1927), pp. 225-226; Abbott P. Usher, *An Introduction to the Industrial History of England* (London, 1921), pp. 43-51; William L. Westermann and Elizabeth S. Hasenoehrl, *Zenon Papyri*, "Greek Series No. 3" (New York, 1934), Vol. I.

The decline and fall of the Western Roman Empire resulted in a breakdown of its complex money economy, in the disintegration of social, political, and economic life, and in the substitution of innumerable local controls. All of this finally culminated in the largely self-sufficing activities of the medieval manor. The ancient money system of exchange did not, however, wholly disappear with the Western collapse. In the Eastern Empire, financial and manufacturing activities survived and international commerce flourished until the fall of Constantinople in 1453, when the money power passed to the Italian cities, thence to Amsterdam and London, and eventually began to envelop a rapidly expanding Western world with a new and intricate web of financial relationships.¹⁴

Long before the fall of Constantinople, indeed, the impact of Eastern civilization upon medieval Europe had been felt through itinerant contacts with adventurous traders and travelers and especially through the influence of the traditional fair, which was of first importance in the later revival of pecuniary activities throughout Western Europe.¹⁵

The traditional fair, a very different institution from the modern "exposition," had been from earliest times a center for the exchange of numerous commodities brought from far and near, often at tremendous risk to the trader. Frequently safe-conduct had to be purchased and temporary peace among hostile tribes and peoples had to be guaranteed for the period of the fair. Most trade at the fairs was wholesale (although retail trade was not always forbidden), the goods to be exchanged being either fabricated by the labor of slaves or acquired by pillage or shrewd dealings in out-of-the-way places. The trader had no notion of getting or giving a "fair exchange" except in terms of certain superficial trading practices established in the ancient law merchant. Under such circumstances was international trade developed and the wholesale market organized.¹⁶

¹⁴ Cf. Knight, *op. cit.*, pp. 95-97; Lindsay, *op. cit.*, I, 222-252; Mitchell, *loc. cit.*

¹⁵ Cf. Joseph T. Reinaud, *Relations Politiques et Commerciales de l'Empire Romain* (Paris, 1863), pp. 160-304, *passim*; R. Whately Cooke Taylor, *Introduction to a History of the Factory System* (London, 1886), pp. 178-218; Unwin, *op. cit.*, pp. 226-255.

¹⁶ Cf. André Allix, "The Geography of Fairs," *Geographical Review*, Oct., 1922, pp. 532-569; Wyndham A. Bewes, *The Romance of the Law Merchant* (London, 1923);

Ancient fairs were usually held in some neutral area or at some religious shrine under the protection of a military or priestly chieftain, at places which also witnessed the more frequent boundary barter-exchanges.¹⁷ From records of the ancient Phoenicians, Romans, Hebrews, and other early peoples, we learn that trade through fairs was in their day already an established practice. Slaves were among the most profitable of the "goods" exchanged.¹⁸ During the years of Roman expansion, the trade of the fairs reached considerable proportions. Such trade declined during the time of the Roman Peace (because of the more regular foreign relations developed through the Empire) and did not come to life again until after the disruptive force of the northern invasions had somewhat subsided.¹⁹

The intermittent Western trade of the "dark ages," carried on principally by wandering Arabs, Jews, and Saxons, gradually gave way to the revived commerce of the medieval fairs. Under a "peace of God" or a "peace of feudal lord" (and later of the king) foreign merchants once more assembled to buy and sell at designated times and places. Fairs of this period are recorded as early as the first half of the fifth century A.D., in France and Italy, and in England during the reign of Alfred the Great in the ninth century. Medieval

Paul Huvelin, *Essai Historique sur le Droit des Marchés et des Foires* (Paris, 1897); Julius Klein, *The Mesta* (Cambridge, 1920); Josif M. Kulisher, "Allgemeine Wirtschaftsgeschichte des Mittelalters und der Neuzeit," in *Handbuch der Mittelalterlichen und Neueren Geschichte*, Part III (2 vols.; Munich, 1928-29); Ephraim Lipson, *An Introduction to the Economic History of England* (3 vols.; London, 1915-31), I, 196-237; Paul J. Marperger, *Beschreibung der Messen und Jähr-märkte* (Leipsic, 1710); James E. Thorold Rogers, *A History of Agriculture and Prices in England* (7 vols.; Oxford, 1866-1902), I, 141-144; Usher, *op. cit.*, pp. 141-142; Cornelius Walford, *Fairs, Past and Present* (London, 1883); George Yver, *Le Commerce et les Marchands* (Paris, 1903), pp. 74-76, 312-313.

¹⁷ Cf. Bewes, *op. cit.*, pp. 96-103; Paul B. Du Chaillu, *The Viking Age* (2 vols.; New York, 1889), II, 210; Huvelin, *op. cit.*, pp. 10-12, 33-51; Lindsay, *op. cit.*, I, 95-96; Henry Morley, *Memoirs of St. Bartholomew Fair* (London, 1859), pp. 16-24; Walford, *Fairs, Past and Present*, p. 1.

¹⁸ Cf. Bewes, *op. cit.*, pp. 1-11; Huvelin, *op. cit.*, pp. 47-51; Lindsay, *op. cit.*, pp. 79-99; George Rawlinson, *History of Phoenicia* (New York, 1889), pp. 245-250, 282-308; Reinaud, *loc. cit.*; James W. Thompson, *op. cit.*, pp. 24-26; Jean Toureau, *Les Institutes du Droit Consulaire* (2 vols., 2d ed.; Bourges, 1700), I, 181-195.

¹⁹ Cf. Lindsay, *op. cit.*, I, 105, 109-111; Reinaud, *op. cit.*, pp. 209-210.

traders seem to have been very heavily taxed both at the fairs and for safe-conduct on the way.²⁰

It was apparently with the early Crusades that the real trade revival between medieval Europe and the East took place and that the reappearance of Western "fair" centers became accelerated. The church became a considerable trader and greatly influenced the practices of the fairs and the course of the law merchant. Arab traders, from whom European merchants took over the preponderance of trade at this time, had previously penetrated deeply into Western and Northern Europe and had assisted in teaching Europeans the use of currencies and the ancient trading customs of the East. Among these customs were prohibitions against usury, fore-stalling, regrating, and engrossing, aimed to prevent gross extortion and the cornering of wares on the roads leading to the markets.²¹

The establishment of medieval towns further stimulated the trade of the fairs. Champagne was among the principal fair centers during the twelfth, thirteenth, and fourteenth centuries, or until the exactation of exorbitant fees, the Black Death, and the Hundred Years War shifted commerce from this region to other places by way of the sea routes and the Straits of Gibraltar. The Italian cities, after the fall of Constantinople, benefited greatly from a trading and financial point of view.²² From that time until the beginning of the seven-

²⁰ Cf. Bewes, *op. cit.*, pp. 93-105; Huvelin, *op. cit.*, pp. 135, 175-183, 245, 338-359; James W. Thompson, *op. cit.*, pp. 565-602; Walford, *op. cit.*, p. 245.

²¹ Cf. Bewes, *op. cit.*, pp. 8-9, 19-91; William Cunningham, *An Essay on Western Civilization in Its Economic Aspects* (2 vols.; Cambridge, England, 1898 and 1900), II, 152-154; Huvelin, *op. cit.*, pp. 15-23, 242-243; William Mitchell, *An Essay on the Early History of the Law Merchant* (Cambridge, England, 1904), pp. 22-38; Frederic R. Sanborn, *Origins of the Early English Maritime and Commercial Law* (New York, 1930), pp. 182-261 (200), and "Law Merchant," *Encyclopedia of the Social Sciences*, IX, 270-274; James W. Thompson, *op. cit.*, pp. 380-564. For further details regarding the Law Merchant, see also: Mary Bateson, *Borough Customs*, "Selden Society Publications" (2 vols.; London, 1904 and 1906), II, 183-194; Francis B. Bickley (ed.), *The Little Red Book of Bristol* (2 vols.; Bristol, 1900), I, 57-85; H. G. Richardson, "The Law Merchant in London in 1922," *English Historical Review*, April, 1922, pp. 242-248.

Cf., also, Bewes, *op. cit.*, pp. 5-11, 90-91; Du Chaillu, *op. cit.*, II, 219; Knight, *op. cit.*, pp. 97-99; Lindsay, *op. cit.*, I, 218-219; James W. Thompson, *op. cit.*, pp. 312-379 (*passim*), 431-433; Huvelin, *op. cit.*, pp. 308-318; Yver, *op. cit.*, pp. 312-313.

²² Cf. Charles Alengry, *Les Foires de Champagne* (Paris, 1915); Huvelin, *op. cit.*, pp. 250-255; Jean C. L. Simonde de Sismondi, *History of the Italian Republics in the Middle*

teenth century, money changing was stabilized, bills of exchange and other forms of credit were re-established, and the foundation was laid for the full return of a money economy. European fairs declined by the end of the sixteenth century, except in Germany and Russia. With improved political relations, the reappearance of a money economy, and other factors making for increased security on land and sea, the need for the traditional fair ceased. It is now found only in a few parts of the world, but for a long period it provided the chief means for trade in an international sense.²³

This brief review of the external relations which led in ancient and medieval times to the establishment of wholesale markets and wholesale prices through the traditional fair should assist further in clearing away certain preconceptions regarding the alleged predominant influence of pure barter and rational calculations in the development of economic institutions. Obviously of much more importance was the influence of such factors as pillage, expropriation, tribute, slavery, serfdom, and the hazards of ancient and medieval travel.

In the prices established by this institutional development we find little if any of the classical "costs of production" or "rationalized utilities." The labor "costs" of the domesticated and human beasts of burden that fabricated ancient and medieval commodities were not the "costs" of those who held the goods for exchange at the fairs, and the "utilities" involved in the exchanges were just as unrelated and unmeasurable. A glittering bauble, a persuasive seller, the play of primitive emotions and passions; avarice, cupidity, and greed pitted against the fruits of exploitation and theft; buying for the lowest price in out-of-the-way places and selling at the fairs for all the traffic would bear—these were evidently the more potent

Ages, recast and supplemented by William Boultling (New York, 1906); James W. Thompson, *op. cit.*, pp. 589-602.

²³ William Cunningham, *Growth of English Industry and Commerce* (3 vols., 5th ed.; Cambridge, England, 1927), I, 86-87. Cf., also, Lindsay, *op. cit.*, I, 358; James W. Thompson, *op. cit.*, pp. 226-259; Grimur J. Thorkelin, *Essay on the Slave Trade* (London, 1788), pp. 4-10.

Cf., also, Bewes, *op. cit.*, p. 9; Vladimir P. Bezobrazov, *Sketches of the Nizhnij Novgorod Fair*, in Russian (Moscow, 1865); George Cleinow, *Der Grosse Jahrmarkt von Nischnij Novgorod* (Erfurt, 1925); William Forsyth, *The Great Fair of Nijni Novgorod Clowes* (London, 1865).

influences that set the wholesale prices of such trade as was nurtured by the great fairs.²⁴ Although these generalizations pertain primarily to world markets and to wholesale prices, local tradesmen, as the medieval retail market took form, naturally tended to follow the traditions set by the fairs.

SECTION III. THE MEDIEVAL ECONOMY AND RETAIL MARKET

With the subjugation of Western Europe by the conquering Northmen, the highly developed pecuniary organization of the ancients was in ruins there, as has been pointed out. Modern research, however, reveals much more continuity than had previously been supposed between the ancient and the medieval in Western Europe. In many respects important Roman influences persisted, though modified by the customs of the Northmen. In the end, life in medieval Europe, though conditioned by particular local traditions, took on a fairly uniform economic pattern, which may be illustrated by events in England.²⁵

Whether previously in general existence or not, a widespread condition of serfdom is revealed in England in the first Domesday Survey under William the Norman Conqueror. Several important parts of the internal economic structure of this period stand forth clearly in this survey: the predominant village and manor, the limited though continuing use of money, and the scattered borough or town.²⁶

²⁴ Cf. William J. Ashley, *English Economic History and Theory* (3d ed.; New York, 1894), Part I, pp. 132-133.

²⁵ Cf. Georg von Below, *Territorium und Stadt* (Munich, 1923), *Das Ältere Deutsche Städtewesen und Bürgertum* (Leipsic, 1925), and *Der Deutsche Staat des Mittelalters* (Leipsic, 1914); Prosper Boissonade, *Life and Work in Medieval Europe*, tr. Power (New York, 1927); William Cunningham, *An Essay on Western Civilization in Its Economic Aspects*, II, 1-6; Norman S. B. Gras, *An Introduction to Economic History* (New York, 1922); Melvin M. Knight, *Economic History of Europe to the End of the Middle Ages* (New York, 1926), pp. 142-148; Mitchell, *Business Cycles*, pp. 66-68; Henri Pirenne, Gustave Cohen, Henri Focillon, *La Civilisation Occidentale au Moyen Age* (Paris, 1933), pp. 7-15, 92-104 (93); Henri Pirenne, *Medieval Cities*, tr. Halsey (Princeton, 1925); Carl Stephenson, *Mediaeval History, Europe from the Fourth to the Sixteenth Century* (New York, 1935); Henry O. Taylor, *The Mediaeval Mind* (2 vols., 4th ed.; London, 1930), Vol. I; James W. Thompson, *op. cit.*; Usher, *op. cit.*, pp. 52-57.

²⁶ Cf. Ashley, *An Introduction to English Economic History and Theory*, Part I, pp. 13-16; Adolphus Ballard, *The Domesday Inquest* (London, 1906), pp. 108-111; Hector M. Chadwick, *The Origin of the English Nation* (Cambridge, England, 1907)

The English manorial system, brought to completion by the Norman conquest, probably involved 90 per cent of the people and centered upon the self-sustaining village with its indigenous peasantry, who worked the land to sustain themselves and their masters and who paid tribute to lord and king. Land tenure rested in the king, and its transfer even by freemen was restricted. The land was actually held partly by lords or their stewards and partly by peasants, some portions being held in common. All cultivation was done by the peasants; and the manor or village, the center of peasant life, was almost completely self-contained, even to having its own court of law. To the previously existent English classes of freemen, serfs, and slaves, the Normans added a new upper stratum of Norman freemen; they also reduced the status of some Anglo-Saxon freemen and raised that of the slaves. Security and homogeneity of economic life increased, but the peasants remained still more definitely subject to the lord and bound to the soil as serfs.

pp. 17-19, 303-344; Edward P. Cheyney, *An Introduction to the Industrial and Social History of England* (New York, 1920), pp. 8-10; William Cunningham, *The Growth of English Industry and Commerce* (3 vols., 5th ed.; Cambridge, England, 1910-12), I, 54-65, 85-86, 641-646; Edward Davies, *Celtic Researches on the Origin, Traditions, and Language of the Ancient Britons* (London, 1804), pp. 118-119; Edward A. Freeman. *The History of the Norman Conquest of England* (6 vols.; Oxford, 1867-79), II, 163-180; Russell M. Garnier, *History of the English Landed Interest* (New York, 1892), pp. 1-122; Holmes, *Ancient Britain and the Invasions of Julius Caesar*; Joseph Hudson, *Remarks upon the History of the Landed and Commercial Policy of England from the Invasion of the Romans to the Accession of James the First* (2 vols.; London, 1785), I, 1-106; John M. Kemble, *The Saxons in England* (2 vols.; London, 1849), I, 8, 20-21, 185-227; James F. Morgan, *England under the Norman Occupation* (London, 1858), pp. 61-150; Francis Palgrave, *The History of Normandy and of England* (4 vols.; London, 1851-64) III, 152, 295-324 (301); Frederic Seebohm, *The English Village Community* (New York, 1883), pp. 189-199, 208-213; Stephenson, *op. cit.*, pp. 283-289; James W. Thompson, *op. cit.*, pp. 306-307; Henry D. Traill and James S. Mann (eds.), *Social England* (6 vols., ill. ed.; London, 1901-1904), Vol. I; Paul Vinogradoff, *The Growth of the Manor* (New York, 1905), pp. 3-114.

Cf., also, Sidney O. Addy, *Church and Manor, a Study in English Economic History* (London, 1913); Charles M. Andrews, *The Old English Manor* (Baltimore, 1892); Adolphus Ballard, *The Domesday Boroughs* (Oxford, 1904); Mary Bateson, *Borough Customs*, "Selden Society Publications"; Bickley (ed.), *op. cit.*; Walter A. Copinger, *The Manors of Suffolk* (7 vols.; London, 1905); George C. Coulton, *The Medieval Village* (Cambridge, England, 1925), and *The Medieval Scene* (Cambridge, England, 1930); Cunningham, *The Growth of English Industry and Commerce*, Vol. I; R. E. Prothero Ernle, *English Farming, Past and Present* (New York, 1922); Abbot Gasquet, *Parish Life in Mediaeval England* (London, 1906); Norman S. B. and Ethel C. Gras

There were for a long time in medieval England virtually no economic competition between manors and no free movement of labor, except as it existed in the scattered towns. Living conditions among the serfs were poor. The coarse food was prepared and consumed on the spot; the clothes were homespun; and the shelter was scanty and insanitary. The few commodities not supplied by the manors themselves were procured at the infrequent fairs or in the scattered towns. Such purchase was, for a time, the only source of money utilization in the manorial economy, which, though it died out in England about the end of the fourteenth century, continued from four to five centuries longer on the European continent.²⁷

"The Economic and Social History of an English Village," *Harvard Economic Studies* (Cambridge, 1930), Vol. XXXIV; William H. Hale, "The Domesday of St. Paul's of the Year M. CC. XXII," *Publications of the Camden Society*, No. 69 (1858); William Hasbach, *A History of the English Agricultural Labourer*, tr. Kenyon (London, 1908); Christobel M. (Hoare) Hood, *The History of an East Anglian Soke*, 4 parts (Bedford, 1918); David Houard, *Traité sur les Coutumes Anglo-Normandes* (4 vols.; Paris, 1776) (Vol. III: *Fleta*); Lipson, *op. cit.*, Vol. I; Frederic W. Maitland, *Domesday Book and Beyond* (Cambridge, England, 1897), and *Township and Borough* (Cambridge, England, 1898); Meredith, *Outlines of the Economic History of England*; Frances M. Page, *The Estates of Crowland Abbey* (Cambridge, England, 1934); J. W. Graham Peace, *The Great Robbery* (London, 1933); Frederick Pollock and Frederic W. Maitland *The History of English Law before the Time of Edward I* (2 vols., 2d ed.; Cambridge, England, 1923); Rogers, *A History of Agricultural Prices in England*, Vol. I; John H. Round, *Feudal England* (London, 1895); Louis F. Salzman, *English Industries of the Middle Ages* (new ed., Oxford, 1923); Carl Stephenson, *Borough and Town* (Cambridge, 1933); William Stubbs, *The Constitutional History of England* (3 vols., 6th ed.; Oxford, 1897), Vols. I and II; Traill and Mann, *op. cit.*, I, 340-349; George Unwin, *Studies in Economic History*, ed. Tawney; Vinogradoff, *Villainage in England* (Oxford, 1892), and *English Society in the Eleventh Century* (Oxford, 1908).

²⁷ Cf. Andrews, *op. cit.*; Ashley, *An Introduction to English Economic History and Theory*, Part I, pp. 3-42, and *The Economic Organization of England* (New York, 1914), pp. 1-24; Ballard, *The Domesday Inquest*, pp. 1-25, 30-176, 201-220; Alfred E. Bland *et al.* (eds.), *English Economic History, Select Documents* (London, 1925), pp. 15-41, 53-110; Hector M. Chadwick, *Studies on Anglo-Saxon Institutions* (Cambridge, England, 1905), pp. 76-197, and *The Origin of the English Nation*, pp. 76-89; Cheyney, *op. cit.*, pp. 1-49; Copinger, *op. cit.*, I, Introduction, pp. v-xv; Coulton, *The Medieval Village*, pp. 8-43, 65-120, 140-186, 208-252, 279-344, 396-489; Cunningham, *The Growth of English Industry and Commerce*, I, 1-6, 45-46, 70-78, 162-172, 375-381, 534; Ernle, *op. cit.*, pp. 1-30; Freeman, *op. cit.*, III, 255-562, V, 3-68, 460-464, 733-820; Garnier, *op. cit.*, pp. 123-209; Gras, "The Economic and Social History of an English Village," pp. 3-58, 167 ff., and *An Introduction to Economic History*, pp. 49-103; Hale, *op. cit.*, pp. i-xli; Houard, *op. cit.*, I, 195-260, 440-448; (Vol. III: *Fleta*), 1-13, 334-

Apart from the prevailing manorial economy, however, money continued in general use in Europe for foreign trade and at the fairs from earliest medieval times. In England, coinage of money remained a royal prerogative and was thus protected from serious debasement, which was not true on the Continent, where debasement was common. From primary use in foreign trade and at the fairs, money eventually trickled through the upper strata of medieval society into the hands of the peasants.²⁸

With respect to boroughs and towns, about one hundred of them are recorded in the first Domesday Survey of England, the town inhabitants living partly by agriculture and partly by trade. The origin of English towns is still obscure. Some may have been the outgrowth of refuges within the walls of old Roman strongholds, abandoned when Rome no longer ruled the island; others were ap-

339, 445-461, 550-559, *passim*; Knight, *op. cit.*, pp. 187-197 (192); Lipson, *op. cit.*, I, 1-76; Henry S. Maine, *Village Communities in the East and West* (London, 1871), pp. 131-149; Maitland, *Domesday Book and Beyond*, pp. 1-171, 318-356; Meredith, *op. cit.*, pp. 33-46; Page, *op. cit.*, pp. 1-119, 131-144; Pollock and Maitland, *op. cit.*, I, 229-457, 594-634; James E. Thorold Rogers, *Six Centuries of Work and Wages* (London, 1912), pp. 38-101, *passim*; Round, *op. cit.*, pp. 3-146, 225-235; Seeböhm, *op. cit.*, pp. 1-180; Stephenson, *Mediaeval History*, pp. 251-271; Stubbs, *op. cit.*, I, 74-88, 269-304, 462-467; James W. Thompson, *op. cit.*, pp. 726-764; Traill and Mann, *op. cit.*, I, 512-516, 532-559; Usher, *op. cit.*, pp. 109-133; Vinogradoff, *English Society in the Eleventh Century*, pp. 305-479, *The Growth of the Manor*, pp. 212-365, and *Vil-lainage in England*, pp. 313-409, *passim*; George T. Warner, *Landmarks in English Industrial History* (4th ed.; London, 1904), pp. 26-45.

²⁸ Cf. Ashley, *An Introduction to English Economic History and Theory*, Part I, pp. 44-49, 163-178; Ballard, *The Domesday Inquest*, pp. 221-241, and *The Domesday Boroughs*, pp. 75-77, 118-120; Chadwick, *The Origin of the English Nation*, pp. 17-18, and *Studies on Anglo-Saxon Institutions*, pp. 1-75; Coulton, *The Medieval Village*, pp. 36-37, 44, 307-320; Cunningham, *The Growth of English Industry and Commerce*, I, 104-105, 116-118, 153-156, 171-172, 326-329, 353-359, 431-433, 541-543, 562-564; Gras, "The Economic and Social History of an English Village," pp. 62-74, 83-90; Edward Hawkins, *The Silver Coins of England* (London, 1876), pp. 35-39, *passim*; Charles P. Huse, "The Influence of Economic Environment on the Development of Public Revenues in England," in *Facts and Factors in Economic History*, ed. Edwin F. Gay (Cambridge, 1932), pp. 40-61; Lipson, *op. cit.*, I, 4445; Maitland, *Domesday Book and Beyond*, pp. 54-58, 74-79; Meredith, *op. cit.*, pp. 13-15, 62-64, 162-170; Seeböhm, *op. cit.*, pp. 41-45, 52-55, 58-60, 67-69, 78-81; Stephenson, *Mediaeval History*, pp. 198, 268-271, 503; James W. Thompson, *op. cit.*, pp. 753-755; Traill and Mann, *op. cit.*, I, 516-518; Vinogradoff, *English Society in the Eleventh Century*, pp. 140-176, 390, and *Growth of the English Manor*, pp. 328-330; Warner, *op. cit.*, pp. 62-74; Charlotte M. Waters, *An Economic History of England* (London, 1925), pp. 97-99.

parently built about trade centers, either on some trade route or on the border between provinces.²⁹ Towns belonging to the estate of a feudal lord were, of course, like everything else, subject to feudal exactions. Later, towns petitioned the king for the right to manage their own affairs; but, in securing such rights through royal charter, they were not relieved from paying tribute to the king. Towns on royal estates were readily chartered; those on a lord's estate, less readily; and those on Church property, with great difficulty. But little by little the independent town became a new world in the midst of medievalism, and in it money payments for services and commodities eventually became the rule.³⁰

There soon developed a weekly retail market in virtually every town. This was strictly supervised. In turn it prohibited the sale of stolen property; provided valuable revenue through the tolls; furthered monopolistic control; and, though serving at first the local needs only, in the end it replaced the large fairs as these passed, and as the merchant and craft gilds became important. The merchant gild had economic, civic, and benevolent purposes, but its main objective was to maintain the trade monopoly of the town. The craft gild sought a similar monopoly of industry as the merchant gilds had of trade. From the struggles for power between the gilds

²⁹ Cf. Ashley, *An Introduction to English Economic History and Theory*, Part I, pp. 68-70, and *The Economic Organization of England*, pp. 26-27; Ballard, *The Domesday Inquest*, pp. 176-178, and *The Domesday Boroughs*, pp. 4-10, *passim*; Bland *et al.*, *op. cit.*, pp. 9-16, 111-113; Cheyney, *op. cit.*, pp. 5-7, 50-51; Cunningham, *The Growth of English Industry and Commerce*, I, 92-97, 172-174; Gras, *An Introduction to Economic History*, pp. 104-110, 121-125; Lipson, *op. cit.*, I, 163-195; Maitland, *Domesday Book and Beyond*, pp. 172-219, and "The Origin of the Borough," *English Historical Review*, Jan., 1896, pp. 13-19; Meredith, *op. cit.*, pp. 47-51; Morgan, *op. cit.*, pp. 151-174; Stephenson, *Borough and Town*, pp. 3-21, 47-119, 186-214, and *Mediaeval History*, pp. 343-368; Unwin, *op. cit.*, pp. 49-74.

³⁰ Cf. Ballard, *The Domesday Boroughs*, pp. 41-62, 77-103; Bateson, *op. cit.*, II, 79-86, 164-166; Coulton, *The Medieval Scene*, pp. 48-56; Cunningham, *The Growth of English Industry and Commerce*, I, 156-161, 211-229; Charles Frost, *Notices Relative to the Early History of the Town and Port of Hull* (London, 1827), pp. 40-67; W. E. Lunt, "The Consent of the English Lower Clergy to Taxation, 1166-1216," in Gay, *op. cit.*, pp. 62-89; Pollock and Maitland, *op. cit.*, I, 634-688; Stephenson, *Borough and Town*, pp. 128-138, 152-185; Stubbs, *op. cit.*, I, 438-448; Warner, *op. cit.*, pp. 45-62; Waters, *op. cit.*, pp. 19-23, 51-59.

and the towns, there eventually emerged a new dominant group of industrial barons and influential traders.³¹

The development of the English retail price and money system may be viewed from several standpoints: First, the flow of feudal services and commodities to king and overlord was gradually changed into money payments in the form of taxes, tolls, duties, grants, and the like, paid chiefly as tribute, and not as now in exchange for some recognized *quid pro quo* of public benefit. Through various channels, the king collected enough tribute to take care of all his needs and to leave him a considerable surplus for luxuries. After him, the nobles took their share of tribute. With increased use of money came increased surpluses and profits for lords, burgesses, and merchants, even after the customary rents and taxes to the king had been paid.³²

³¹ Cf. Ashley, *An Introduction to English Economic History and Theory*, Part I, pp. 67-123; Ballard, *The Domesday Boroughs*, pp. 54-62, 87-93, 115-118; Bickley, *op. cit.*, I, xx-xxix; II, *passim*; Bland et al., *op. cit.*, pp. 111-150, 279-312; Cheyney, *op. cit.*, pp. 50-68; Coulton, *The Medieval Scene*, pp. 88-93; Cunningham, *The Growth of English Industry and Commerce*, I, 129-130, 219-229, 336-353, 506-525; Garnier, *op. cit.*, pp. 225-237; Gasquet, *op. cit.*, pp. 253-273; Charles Gross, *The Gild Merchant* (2 vols.; Oxford, 1890); Stella Kramer, *The English Craft Gilds* (New York, 1927); Lipson, *op. cit.*, I, 238-390; Maitland, *Domesday Book and Beyond*, pp. 190-202; Meredith, *op. cit.*, pp. 49-61, 122-140; Pollock and Maitland, *op. cit.*, I, 664-671; Salzman, *op. cit.*; Sanborn, *op. cit.*, pp. 324 ff.; Stubbs, *op. cit.*, I, 445-455; Taylor, *op. cit.*, I, 335-345; George Unwin, *The Gilds and Companies of London* (London, 1908), and *Studies in Economic History*, pp. 92-116, 255-261; Usher, *op. cit.*, pp. 146-194; Cornelius Walford, *Gilds* (new ed.; London, 1888); Warner, *op. cit.*, pp. 116-133; Waters, *op. cit.*, pp. 51-87; Herbert F. Westlake, *The Parish Gilds of Mediaeval England* (New York, 1919). For a more general account of gilds, see: Lujo Brentano, *On the History and Development of Gilds and the Origin of Trade-Unions* (London, 1870); Paul Hubert-Valleroux, *Les Corporations d'Arts et Métiers, et les Syndicats Professionnels* (Paris, 1885); Joseph M. Lambert, *Two Thousand Years of Gild Life* (Hull, 1891); Ernest Mahaim, "Les Syndicats Professionnels," in the *Bibliothèque Belge des Connaissances Modernes* (Brussels, 1893), pp. 25-88.

³² Cf. Ballard, *The Domesday Boroughs*, pp. 63-103, and *The Domesday Inquest*, pp. 221-254; Bland et al., *op. cit.*, pp. 27-28, 32-35, 114-116, 121-124, 128-136, 204-216; Cheyney, *op. cit.*, pp. 19-21, 35-41; Coulton, *The Medieval Village*, pp. 25-34, 279-306, 444-491; Cunningham, *The Growth of English Industry and Commerce*, I, 148-161, 215-218, 229-249; Stephen Dowell, *A History of Taxation and Taxes in England* (4 vols.; London, 1884), I, 13-91; Gras, "The Economic and Social History of an English Village," pp. 53-66, 83-90, 143-148, 186-456; Lipson, *op. cit.*, pp. 14-29, 186-190, 509-531; Maitland, *Domesday Book and Beyond*, pp. 150-172, 203-209, 236-242, 318-324; Meredith, *op. cit.*, pp. 22-25, 71-75; Reginald L. Poole, *The Exchequer in the Twelfth*

Second, the ruling classes allowed commutation of manorial services and commodities into money payments primarily on terms of advantage to themselves. Fines and wages, established in the course of special commutation arrangements, became the basis for more general commutations. Both the lord and the serf benefited by the change. The money payments provided the lords with equal or greater incomes, easily disposed of for comforts and luxuries; and the serfs were delivered from onerous personal restrictions, although their economic lot became worse later on. The accustomed standard of bare subsistence for the serf was clearly known; and, in the commutation of his services into money payments, care was taken that this standard should not be raised. It was naturally argued that what the serf could live on in bondage he could live on when freed.³³ Third, with the rise of towns to power, merchants and industrial barons followed the example of king and nobles. Their tribute from the masses came to be regarded as "interest" and "profits," which, at that time, were not differentiated as they are now.³⁴

Century (Oxford, 1912); Rogers, *Six Centuries of Work and Wages*, pp. 17-37; Seebohm, *op. cit.*, pp. 40-45, 72-81, 97-98, 289-299, 318-335, 445-447; Stephenson, *Borough and Town*, pp. 96-107, 152-166; Stubbs, *op. cit.*, I, 302-304, II, *passim*; Warner, *op. cit.*, pp. 62-74; Waters, *op. cit.*, pp. 26-31, 88-100; Usher, *op. cit.*, pp. 128-131; Vinogradoff, *English Society in the Eleventh Century*, pp. 39-89, 140-218, *The Growth of the Manor*, pp. 307-331, and *Villainage in England*, pp. 77-83, 108-111, 150-164, 201-210, 278-312.

³³ Cf. Ashley, *The Economic Organization of England*, pp. 44-67, and *An Introduction to English Economic History and Theory*, Part I, pp. 20-23, 29-33, 45-49; Boissonade, *op. cit.*, pp. 239-263; Coulton, *The Medieval Village*, pp. 8-24, 105-207, 437-440, 499-507; Ernle, *op. cit.*, pp. 31-54; Garnier, *op. cit.*, pp. 219-224; Gras, "The Economic and Social History of an English Village," pp. 74-80, 320-325 (col. 14); Hasbach, *op. cit.*, pp. 1-43; Lipson, *op. cit.*, I, 77-85; Meredith, *op. cit.*, pp. 36-46; Frances M. Page, *op. cit.*, pp. 145-155; Thomas W. Page, "The End of Villainage in England," *Publications of the American Economic Association*, 3d ser., I (May, 1900), 3-99; Rogers, *A History of Agriculture and Prices in England*, II, 273-334, 576-583, and *Six Centuries of Work and Wages*, pp. 159-187; Vinogradoff, *Villainage in England*, pp. 178-210.

³⁴ Cf. Ashley, *The Economic Organization of England*, pp. 68-87; Cheyney, *op. cit.*, pp. 67-81; Cunningham, *The Growth of English Industry and Commerce*, I, 269-298; John A. Hobson, *The Evolution of Modern Capitalism* (New York, 1917), pp. 1-24; Lipson, *op. cit.*, pp. 391-508; Meredith, *op. cit.*, pp. 141-161; Pirenne, *Medieval Cities*, pp. 109-173, and "The Stages in the Social History of Capitalism," *American Historical Review*, May, 1914, pp. 494-515; Salzman, *op. cit.*, pp. 305-351; Sanborn, *op. cit.*, pp. 356-401; Hannah Robie Sewall, "The Theory of Value Before Adam Smith," *Publications of the American Economic Association*, 3d ser., II (Aug., 1901), 1-31; George Unwin (ed.), *Finance and Trade under Edward III* (New York, 1918); Usher, *op. cit.*,

The main sequence of events behind the establishment of medieval retail markets and systems of retail prices may now be summarized: With the coming of the Norman to England, the maximum amount of tribute in both services and payments in kind was extracted from the conquered people. The scattered towns through monopoly of foreign trade provided further channels for collecting tribute and assisted in the commutation of services and payments in kind into money remittances. The towns also developed retail markets, which contributed to the same flow of tribute to the ruling classes. Tradition, custom, judicial decision, legal enactment, and political power built up a highly effective mechanism for the collection of tributary payments and for keeping subdued people in their place; and this mechanism was later used by merchants and industrialists for similar ends. Retail markets and resultant retail price systems were essential parts of this enslaving and tribute-yielding mechanism.

There were, of course, other factors that had a bearing on the development of medieval markets and systems of prices. Among them the setting of the so-called "just price" merits special consideration.

SECTION 112. THE MEDIEVAL "JUST PRICE"

For a satisfactory understanding of the doctrine of the "just price," an integral part of the medieval economy, the place of the Church in that economy must be appreciated, since it was through the medieval Church—by far the most powerful single influence upon the social and personal life of the period—that the doctrine was systematically promulgated. From a material point of view, the tremendous wealth and power of the feudal Church were maintained partially by way of tithes, free-will offerings, and fees; but for the most part, so far as it concerned the higher ecclesiastical officials, they were maintained by way of the tribute-rendering mechanism brought to perfection by feudalism and serfdom. Bishops and abbots possessed feudal lands as did the lay nobility, divided them into manors, worked them by serf labor, and secured therefrom tribute similar to that obtained from lay estates. In the commutation of

pp. 146-157; Grace F. Ward, "The Early History of the Merchant Staplers," *English Historical Review*, July, 1918, pp. 297-319; Warner, *op. cit.*, pp. 74-95; Waters, *op. cit.*, pp. 83-87, 120-142.

manorial exactions in kind and services into money payments, the ecclesiastical recipients thus stood at least as much to gain as did the lay barons and overlords in maintaining the *status quo* of the workers and in preventing inroads upon purchasing power through the rising influence and monopoly of town merchants and craftsmen. Toward achieving these ends, the promulgation of the doctrine of the "just price" lent most important aid, since it afforded protection to the established position of the lay lord and the Church.³⁵

³⁵ Cf. Henry Babled, *De la Cura Annonae chez les Romains* (Paris, 1892); Vigo A. Demant (ed.), *The Just Price* (London, 1930); Wilhelm Endemann, *Studien in der Romanischkanonistischen Wirtschafts- und Rechtslehre* (2 vols.; Berlin, 1874-83); Amintore Fanfani, *Le Origini dello Spirito Capitalistico in Italia* (Milan, 1933), and *Capitalism, Catholicism and Protestantism* (London, 1935); Henri Garnier, *De l'Idée du Juste Prix chez les Théologiens et Canonistes du Moyen Age* (Paris, 1900); René Gonnard, *Histoire des Doctrines Économiques* (3 vols.; Paris, 1921-22), Vol. I; William S. Holdsworth, *A History of English Law* (7 vols., 3d ed.; London, rewritten, 1922-26), II, 126-144; George O'Brien, *An Essay on Mediaeval Economic Teaching* (London, 1920), but see also Coulton, *The Medieval Village*, pp. 427-428; Friedrich Oertel, *Die Liturgie, studien zur Ptolemäischen und kaiserlichen verwaltung Ägyptens* (Leipzig, 1917); Edgar Salin, "Just Price," *Encyclopedia of the Social Sciences*, VIII, 504-507; Alfred de Tarde, *L'Idée du Juste Prix* (Paris, 1907). Cf., also, Armando Sapori, *La Crisi delle Compagnie Mercantili dei Bardi e dei Peruzzi* (Firenze, 1926), and espec. his *I Libri di Commercio* (Milano, 1934), together with its comprehensive annotated bibliography, pp. lxix-lxxvii.

For the organization and activities of the medieval English Church, see: Addy, *Church and Manor, a Study in English Economic History*, pp. 138-182, *passim*; Ashley, *An Introduction to English Economic History and Theory*, Part II, pp. 306-314; Ballard, *The Domesday Inquest*, pp. 88-94; Bateson, *Borough Customs*, II, 207-214; Coulton, *The Medieval Village*, pp. 75-104, 140-207, 286-306, 482-486, *The Medieval Scene*, pp. 37-56, and *Life in the Middle Ages* (4 vols. in one, 2d ed.; New York, 1930), *passim*; Gasquet, *Parish Life in Mediaeval England*; William H. Hale, *The Domesday of St. Paul's of the Year MCCXXII* (Westminster, 1858); Maitland, *Domesday Book and Beyond*, pp. 226-244; Frances M. Page, *op. cit.*, pp. 79-119; Pollock and Maitland, *The History of English Law*, I, 240-251; Rogers, *Six Centuries of Work and Wages*, pp. 160-169; Alexander Savine, "English Monasteries on the Eve of the Dissolution," in *Oxford Studies in Social and Legal History*, ed. Vinogradoff (9 vols.; Oxford, 1909), I, 1-288; William R. W. Stephens and William Hunt (eds.), *A History of the English Church* (9 vols.; London, 1899-1910), Vols. II and III; James W. Thompson, *op. cit.*, pp. 646-698; Traill and Mann, *op. cit.*, I, 387-398, 573-580; Waters, *An Economic History of England*, pp. 158-173.

Cf., also, Aristotle, *Ethica Nicomachea*, ed. Franciscus Susemihl and Otto Apelt (3d ed.; Leipsic, 1912), pp. 94-123; Aristotle, *The Nicomachean Ethics*, tr. Rackham (New York, 1926), pp. 252-323; Cunningham, *The Growth of English Industry and Commerce*, I, 252; Demant, *op. cit.*, p. 24; Garnier, *op. cit.*, pp. 5-41; Lewis H. Haney, *History of Economic Thought* (3d ed.; New York, 1936), pp. 45-46, 56-69, 91-108;

The kind of justice envisaged in this doctrine was in the main rather superficial and pertained almost entirely to the relations between buyers and sellers, the more fundamental equities involved in how the wares offered for sale had been acquired, or the purchase money had been secured, being left for the most part untouched or for incidental and subordinate treatment. The Roman law gave emphasis to this superficial point of view, first by leaving the buyer-seller relation quite open and later by developing the doctrine of *caveat emptor*, "let the buyer beware," to which the doctrine of the "just price" was opposed.³⁶

"Consumer" and "buyer" should not here be confused, as is done when the claim is made that the "just price" aimed to protect the "consumer." The mass of consumers in early medieval times consisted of the soil-bound peasantry; and during this period it was not the peasants but the lay and ecclesiastical overlords who were primarily concerned about price. The "just price" aimed originally to protect the buying lord and abbot against the selling merchant and craftsman, whom it sought to keep in their place. And when agricultural wage earners increased, their wages, as well as the prices of the goods of the merchant-craftsmen, were measured against the same standard of buyers' "justice," that is, *conditio* and the *communis aestimatio*. Thus the "just price" or wage was essentially the customary price or wage.³⁷

Bede Jarrett, *Social Theories of the Middle Ages, 1200-1500* (London, 1926), pp. 150-164, 175-180; Othmar Spann, *The History of Economics*, tr. Paul (New York, 1930), pp. 25-28; Tarde, *op. cit.*, pp. 24-25; Albert A. Trever, *A History of Greek Economic Thought* (Chicago, 1916), pp. 106-111.

³⁶ Cf. Ashley, *An Introduction to English Economic History and Theory*, Part I, pp. 130-163, who quotes Pomponius, a legist of the second century, that "in purchase and sale it is naturally allowed to the contracting parties to try to overreach one another" (p. 133), also, *ibid.*, Part II, 391-395; Walton H. Hamilton, "Caveat Emptor," *Encyclopedia of the Social Sciences*, III, 280-282; William A. Hunter, *A Systematic and Historical Exposition of Roman Law in the Order of a Code* (2d ed.; London, 1885), pp. 490-505; Justinian, *Corpus Juris Civilis Academicum Parisiense*, ed. C. M. Galisset (7th ed.; Paris, 1862), p. 333 [IV, iv, 16 (4)], p. 669 [XIX, ii, 22 (3)]; Thomas Mackenzie, *Studies in Roman Law* (London, 1862), pp. 207-210; Joseph L. E. Ortolan, *Histoire de la Législation Romaine* (3 vols., 12th ed.; Paris, 1884), III, 267-291.

³⁷ Cf. Albertus Magnus, "Ethicorum," in *Opera* (21 vols. in 13; Leyden, 1651), IV, lib. V, tract 2, sec. 18 (p. 194), sec. 25 (p. 197), sec. 28 (p. 200); George G. Coulton, "An Episode in Canon Law," *History*, July, 1921, 67-76, and *The Medieval Village*,

By the twelfth and thirteenth centuries the "just price" had become quite generally established, offences against it being tried by the town authorities, who were originally drawn from the landowning classes and who made the regulations to which the merchant gilds conformed. The later craft gilds attempted to set and to enforce their own prices, but protests that such prices did not meet the criteria of *conditio* and the *communis aestimatio* could always be presented in the town courts and sometimes in the ecclesiastical courts. As nations grew, "just prices" for certain commodities were fixed by royal decree, though the town authorities still saw to their enforcement. Even more important as a force compelling adherence to the *conditio* price and wage was the use made by the Church of pulpit and confessional.³⁸

The fixing of the "just price" pertained in general to fabricated necessities. The price of raw materials and of luxury commodities brought from afar was usually beyond *conditio* appraisal or monopoly control and was thus left to the higgling and haggling of the market, care being taken to prevent such monopolistic and speculative market practices as forestalling, regrating, and engrossing, again in the interests of the buyer. The question of "just wages" did not apparently become important until after the Black Death in 1349, with resultant shortage of workers and tendency to increased remuneration. The English Statutes of Labourers succeeded somewhat in preventing the wage level from rising—in the name of the same "justice," of

pp. 326-329; Cunningham, *op. cit.*, I, 252-253, and *Essay on Western Civilization in Its Economic Aspects* (2 vols.; Cambridge, England, 1898 and 1900), II, 80-81; Demant, *op. cit.*, pp. 72-75; Gonnard, *op. cit.*, I, 48-65; O'Brien, *op. cit.*, pp. 115 ff.; Salin, *op. cit.*, p. 505; Tarde, *op. cit.*, pp. 27-47; Thomas Aquinas, "Summa Theologica," in *Opera Omnia* (15 vols.; Rome, 1882-1930), 2a 2ae, Q. LXI, art. 1-4 (IX, 34-40), Q. LXXVII, art. 1-4 (IX, 147-154). Cf., also, Ashley, *An Introduction to English Economic History and Theory*, Part I, p. 133; Saint Augustine, "De Trinitate," in *Opera* (11 vols. in 8, Maurist ed.; Paris, 1679-1700), lib. XIII, cap. III (VIII, 930).

³⁸ Cf. Ashley, *An Introduction to English Economic History and Theory*, Part I, pp. 73-89; Brentano, *On the History and Development of Gilds*, pp. 45-46, 55-57; Cunningham, *The Growth of English Industry and Commerce*, I, 342; Demant, *op. cit.*, pp. 32-34; Lipson, *op. cit.*, I, 320-339; Richard H. Tawney, *Religion and the Rise of Capitalism* (London, 1926), pp. 26-29, 37, 52-53.

Cf., also, Ashley, *An Introduction to English Economic History and Theory*, Part I, pp. 187-195, Part II, pp. 385-386; Bland *et al.*, *op. cit.*, p. 167; Tawney, *op. cit.*, pp. 48-52.

things "as they were wont to be," of the subsistence to which the worker was inured.³⁹

The maintenance of the *status quo* for the common people thus appears to sum up the essential meaning of the doctrine of the medieval "just price"; but certain subsidiary arguments came to be just as widely used by the Churchmen, some of them theological or metaphysical in character, others economic in character. Outstanding among the first group were the ideas of "natural order," "divine organism," and "absolute worth." Natural justice, thought of as part of a natural order of things, was made synonymous with the feudal stratification of dominant and submerged classes. The "divine organism" concept went even further in this process of rationalization, sublimating the relation of slave and master to that of "son" and "father." Everything was also said to have its "absolute worth," which was not to be questioned but was merely to be made manifest. Thus the tribute-rendering feudal system became transmuted into a natural and a divine organism, with each element or cell assigned its preordained worth. Justice, right, property, value, all came to take their meaning from these theological assumptions, and a more complete system of apologetics has probably never been formulated.⁴⁰

The economic phases of the theorizing which became associated with the doctrine of the "just price" were developed along similar

³⁹ Cf. Edward P. Cheyney, *An Introduction to the Industrial and Social History of England* (rev. ed.; New York, 1920), p. 57; Demant, *op. cit.*, pp. 28-29; Holdsworth, *op. cit.*, IV, 373-379; George T. Kenyon, *The Life of Lord Kenyon* (London, 1873), pp. 367-375; Lipson, *op. cit.*, I, 270-273; George Unwin, *Industrial Organization in the Sixteenth and Seventeenth Centuries* (Oxford, 1904), pp. 67-69.

Cf., also, Richard Baxter, *Chapters from a Christian Directory*, selected by Jeannette Tawney (London, 1925), pp. 77-80, 102-113; Bland et al., *op. cit.*, pp. 164-167; Demant (ed.), *op. cit.*, pp. 36-38, 40-43; Hasbach, *A History of the English Agricultural Labourer*, pp. 22-25, 204 ff.; William A. S. Hewins, *English Trade and Finance* (London, 1892), pp. 82-88, 118-128; Holdsworth, *op. cit.*, II, 459-466; Rogers, *op. cit.*, pp. 387-413, 437 ff., and *A History of Agriculture and Prices in England*, I, 297-300 (but also see Hewins, *op. cit.*, pp. 89-91); Salzman, *English Industries of The Middle Ages*, pp. 305-307; Tarde, *op. cit.*, pp. 62-64; Unwin, *op. cit.*, pp. 119-120, 216-227.

⁴⁰ Cf. Robert W. and Alexander J. Carlyle, *A History of Mediaeval Political Theory in the West* (6 vols.; London, 1903-1928), II, 93-142, *passim*, V, 444, 457-474; Coulton, *The Mediaeval Village*, pp. 543-546; Demant, *op. cit.*, pp. 46-59; Tawney, *op. cit.*, pp. 13-36; Taylor, *The Mediaeval Mind*, II, 294-309; Thomas Aquinas, *op. cit.*, Ia 2ae, Q, XCV, art. 2 (VII, 175-176), 2a 2ae, Q. LVII, art. 2, 3 (IX, 5-8).

lines and were embodied in the same canonistic and theological literature. Besides the assumptions of "justice" and "value" as dependent upon *conditio* and the *communis aestimatio*, the scholastics incorporated on the economic side all the essential Aristotelian and other dialectical concepts which the later classical economists used in developing their special systems; that is, labor, cost of production, utility, scarcity, demand and supply. The scholastics incorporated these concepts as parts of an economic *omnium-gatherum* however. Nowhere was any attempt made to show how the "just price," fixed with respect to the status of artisan seller or agricultural wage earner, could at the same time measure the "utility" of the commodity to the buyer and likewise meet the varying conditions of demand, supply, scarcity, and abundance. Later the "natural law of free competition" was promulgated to serve as an additional rationalizing criterion. There is thus a line of fairly unbroken descent in economic value theorizing from Aristotle and Diocletian through the medieval "just price" to the classical tradition.⁴¹

Underneath all this ecclesiastic and scholastic dialectic, the tribute-rendering mechanism of which it was a part, remained untouched. In this apologia of the *status quo*, of "justice" and "right" to the buyer, not a word was said about the "justice" of the system through which the lordly and the ecclesiastical purchaser secured the wherewithal to do his buying. The system itself had become natural, divine, inviolable, fixed. *Its* justice was not to be questioned. Later, as the balance of power shifted from the landed nobility to the merchant adventurers and the barons of industry, the emphasis in the classical apologia swung back to the ancient Roman *caveat emptor*, let the buyer beware, as most of the tribute began to flow into the pockets of the new ruling classes of producers and sellers; but still no question was raised by the classicists as to the equity of

⁴¹ Cf. Ashley, *An Introduction to English Economic History and Theory*, Part I, pp. 124-222, Part II, pp. 379 ff., 391-395; Diego de Covarrubias y Leyva, *Opera Omnia*, ed. Uffeli et Patrici (2 vols.; Geneva, 1762), lib. II, cap. III (II, 155-163); William Cunningham, *An Essay on Western Civilization in Its Economic Aspects*, II, 77-82, and *The Growth of English Industry and Commerce*, I, 253, 461; Demant, (ed.), *op. cit.*, pp. 60-73; *Encyclopaedia Britannica* (14th ed.; New York, 1936), VII, 393; Fanfani, *Le Origini dello Spirito Capitalistico in Italia*, pp. 105-130; Garnier, *op. cit.*, pp. 42-136; Meredith, *op. cit.*, pp. 85-96; Salin, *loc. cit.* (p. 505); Tarde, *op. cit.*, pp. 47-67; Tawney, *op. cit.*, p. 40.

the underlying system. Despite the greater political freedom gradually achieved by the masses and the marked increase in industrial efficiency fathered by modern scientific advance, there is little evidence that the economic lot of the people was being substantially bettered. The medieval doctrine of subservient *conditio*, ever more subtly refined and elaborated, seems to have been a millstone around their necks in most European countries to the present day.

SECTION 113. MEDIEVALISM, SCIENTIFIC ADVANCE, AND MODERN BUSINESS

In the fourteenth century a series of disastrous occurrences gave impetus to forces which had long been accumulating in Europe and which eventually broke the power of the feudal hierarchy and the absolute authority of the Church. The great famine of 1315-16; the Black Death of 1348-49; the English Statutes of Labourers; the abortive Peasants' Revolt of 1381; the Enclosures of England—these and similar occurrences marked the passing of serfdom and villeinage, the eclipse of small-town life, the ascent of a relatively few powerful merchant adventurers and industrial barons to positions of widespread economic control, and the beginnings of the modern business system. In this transition feudal lord, emperor, king, pope, and city merchant-industrialist struggled to retain or to gain supremacy.⁴²

⁴² For further details regarding economic and related aspects of this transition, see: Ashley, *An Introduction to English Economic History and Theory*, Part I, p. 206, Part II, pp. 42-65, 99-134, 209-225, 259-304; Arthur Birnie, *An Economic History of the British Isles* (London, 1935), pp. 59-82, *passim*; Bland et al., *op. cit.*, pp. 102-110, 164-178, 227-277; Harriett Bradley, "The Enclosures in England—An Economic Reconstruction," in *Columbia University Studies in History, Economics and Public Law* (New York, 1918), LXXX, No. 2, Whole No. 186, pp. 11-112; Coulton, *The Medieval Village*, pp. 121-139, 208-230; Cunningham, *The Growth of English Industry and Commerce*, I, 329-336, 369-409, 526-541; Demant (ed.), *op. cit.*, pp. 76-91; William Denton, *England in the Fifteenth Century* (London, 1888); Ernle, *English Farming, Past and Present*, pp. 34-77; Francis A. Gasquet, *The Black Death* (2d ed., London, 1908); Gras, "The Economic and Social History of an English Village," pp. 66-119; Howard L. Gray, "The Commutation of Villein Services in England before the Black Death," *English Historical Review*, Oct., 1914, pp. 625-656; Alice S. A. Green, *Town Life in the Fifteenth Century* (2 vols.; New York, 1895); Hasbach, *A History of the English Agricultural Labourer*, pp. 20-43, 365-368, 422-425; Holdsworth, *A History of English Law*, II, 459-464; IV, 364-373, 379-392; Knight, *Economic History of Europe to the End of the Middle Ages*, pp. 187-198; A. Elizabeth Levett and Adolphus Ballard,

As a result of these struggles for power, the fate of medieval Europe might well have been that of the ancient Greek city-states or of the Roman Empire had it not been for important technological and scientific developments which occurred in Europe during the same general period.

First, the thoroughgoing utilization by Europeans of mariner's compass, gunpowder, and printing press opened up hitherto unheard-of opportunities for geographical discovery, colonization, and further plunder, sealed the fate of the knight-errant, and rendered the stored-up knowledge of the privileged few ultimately accessible to the humblest peasant. By the fifteenth and sixteenth centuries the first effects of these developments had already helped here and there to resolve the aforementioned struggles in favor of king, city, and nation; and the scene of conflict was shifting to the international arena. The tremendous expansion of trade and industry following

"The Black Death," in *Oxford Studies in Social and Legal History*, ed. Vinogradoff (Oxford, 1916), V, 7-220; Lipson, *op. cit.*, I, 77-162, 364-443; Mayer, *The Seven Seals of Science*, pp. 404-406; Florence Mishnun, "Statutes of Labourers," *Encyclopedia of the Social Sciences*, IX, 3-6; Page, "The End of Villainage in England," pp. 3-99; Eileen E. Power, "The Effects of the Black Death on Rural Organization in England," *History*, n. s., III, No. 10 (July, 1918), 109-116; Bertha H. Putnam, "The Enforcement of the Statutes of Labourers During the First Decade after the Black Death," in *Columbia University Studies in History, Economics and Public Law* (New York, 1908), Vol. XXXII; André Réville, *Le Soulèvement des Travailleurs d'Angleterre en 1381* (Paris, 1898); Helen Robbins, "A Comparison of the Effects of the Black Death on the Economic Organization of France and England," *Journal of Political Economy*, Aug., 1928, pp. 447-479; Rogers, *A History of Agriculture and Prices in England*, I, 59-62, 80-112, 252-325, 667-681, and *Six Centuries of Work and Wages*, pp. 215-273, 326-341, 356-381, "England before and after the Black Death," *Fortnightly Review* (London), III (Dec. 1, 1865), 191-196 and "The Peasants' War of 1381," *Fortnightly Review* (London), IV (Feb. 15, 1866), 90-95; Frederic Seeböhm, "The Black Death, and Its Place in English History," *Fortnightly Review* (London), II (Sept. 1 and 15, 1865), 149-160, 268-279, and "The Population of England before the 'Black Death,'" *ibid.*, IV (Feb. 15, 1866), pp. 87-89; Gilbert Slater, *The English Peasantry and the Enclosure of Common Fields* (London, 1907); Stephenson, *Mediaeval History*, pp. 657-684; Stubbs, *The Constitutional History of England*, II, 418 ff.; Richard H. Tawney, *Religion and the Rise of Capitalism*, pp. 175-178, *passim*, and *The Agrarian Problem in the Sixteenth Century* (New York, 1912); Lynn Thorndike, *Medieval Europe, Its Development and Civilization* (London, 1920), pp. 451-611; Traill and Mann (eds.), *op. cit.*, II, 161, 184-199, 322-343, 527-568, 735-753; Unwin, *Industrial Organization in the Sixteenth and Seventeenth Centuries*, pp. 19-102; Usher, *An Introduction to the Industrial History of England*, pp. 92-97, 132, 225-239; Waters, *An Economic History of England*, pp. 101-158, 174-217.

the Crusades of the earlier centuries and the later Portuguese and other voyages of discovery threw off medieval restrictions upon price movements and moneylending; the Protestant Reformation merely accelerated these developments; and the influx into Europe of plundered silver and gold from the New World, in addition to an increase of indigenous mining of precious metals, still further disrupted existing systems of prices. A veritable commercial revolution was the result. Developments in the succeeding centuries followed in natural order. The rise of one monarchical nation after another to world power, a scramble for possessions overseas, and the development in the United States and France of modern democracy were in the main the natural consequences of the technological advances mentioned.⁴³

Second, with the eighteenth century, scientific progress brought even more revolutionary changes in the economic realm. The so-called industrial revolution, which followed the commercial revolution, was in essence a mechanical revolution. Machinery driven by artificial power, rapid transportation by railroad and steamship, world communication by ocean cable and electric telegraph, greatly increased use of structural materials and gigantic building with iron and steel, steam power followed swiftly by electric power and then by gasoline combustion and by the mass production of machines and appliances previously undreamed-of—these were the significant elements in the industrial advance. It was, in the main, scientific discovery and technological applications thereof which made the

⁴³ Cf. Wilbur C. Abbott, *The Expansion of Europe* (2 vols.; New York, 1918); Ashley, *An Introduction to English Economic History and Theory*, Part II, pp. 159-169, 226-232, and *The Economic Organization of England* (New York, 1914), pp. 68-118; Jérôme A. Blanqui, *Histoire de l'Économie Politique en Europe depuis les Anciens jusqu'à nos Jours* (5th ed.; Paris, 1882), pp. 111-119, 220-237; Cunningham, *op. cit.*, I, 473-506; II, Part I, 1-12, *passim*; Kathleen M. Gardiner, *Anglo-European History 1492-1660* (London, 1924); Knight, *op. cit.*, pp. 240-254; Melvin M. Knight, Harry E. Barnes, Felix Flugel, *Economic History of Europe in Modern Times* (New York, 1928), pp. 257-314; Meredith, *Outlines of the Economic History of England*, pp. 79-107; David Ogg, *Europe in the Seventeenth Century* (London, 1925); Albert F. Pollard, *Factors in Modern History* (new ed.; London, 1926), pp. 1-261; Ferdinand Schevill, *A History of Europe from the Reformation to the Present Day* (new ed.; New York, 1930), pp. 43-90; Tawney, *Religion and the Rise of Capitalism*, pp. 66-79; Traill and Mann, *op. cit.*, Vol. III; Unwin, *op. cit.*, pp. 103-171; also, his *Studies in Economic History*, ed. Tawney (London, 1927), pp. 133-220, 302-351; Waters, *op. cit.*, pp. 217-241.

modern world a more promising dwelling place for people in the mass than were even ancient Greece and Rome for a relatively few citizens at the height of the glory and splendor of those nations.⁴⁴

Further effects of revolutionary technological and scientific advance upon the institution of the market and price system have been mainly in the direction of a greater elaboration and complexity on the one hand and of a marked instability on the other, bearing in mind that the chief purpose of the institution continued to be served, namely, the yielding of feudal tribute, in so far as the medieval period lingered on, and the yielding of interest, dividends, and profits, in so far as the modern business economy took more definite form. The chief economic issue continued to focus upon what dominant class was to secure the greatest share of the medieval "spoils" or "surplus." Surviving legal and ecclesiastical controls kept practically rigid the social and economic status of the people, who could successfully improve their economic lot only as they fought for and obtained greater personal and political freedom.

The "price revolution" of the sixteenth and seventeenth centuries, due largely to the influx of silver and gold from the New World, produced marked effects upon estate holdings, colonization, export trade, shipbuilding, and moneylending. The Bank of England was established in 1694. English wholesale and retail trade and foreign commerce became greatly augmented, the picturesque fair declined,

⁴⁴ Cf. Abbott, *op. cit.*, II, 204-231, 346-374; Charles Beard, *The Industrial Revolution* (London, 1927), pp. 1-66; Birnie, *op. cit.*, pp. 229-279; Blanqui, *op. cit.*, pp. 378-398; Milton Briggs, *Economic History of England* (2d ed.; London, 1926), pp. 117 ff.; George N. Clark, "Early Capitalism and Invention," *Economic History Review*, April, 1936, pp. 143-156; Cunningham, *op. cit.*, Vol. II, Part II, pp. 609-668; William C. Dampier, *A History of Science, etc.* (New York, 1932), pp. 160-444; Ernle, *op. cit.*, pp. 368-370; John L. and Barbara Hammond, *The Rise of Modern Industry* (London, 1925); Knight, Barnes, Flugel, *op. cit.*, pp. 344-435; Lilian C. A. Knowles, *The Industrial and Commercial Revolutions in Great Britain during the Nineteenth Century* (New York, 1921); Paul J. Mantoux, *The Industrial Revolution in the Eighteenth Century* (London, 1928); Mayer, *The Seven Seals of Science*, pp. 3, 60, 143-145, 211-215, 389-391, 404 ff.; William T. Sedgwick and Harry W. Tyler, *A Short History of Science* (New York, 1929), pp. 273-366; R. Whately Cooke Taylor, *Introduction to a History of the Factory System* (London, 1886), pp. 340-433, *passim*; Arnold Toynbee, *Lectures on the Industrial Revolution in England* (London, 1884); pp. 32-152, Unwin, *Studies in Economic History*, pp. 352-373; Usher, *op. cit.*, pp. 247-529, Appendix, pp. x-xviii; Waters, *op. cit.*, pp. 333-456, 486-595.

large-scale business enterprises multiplied, insurance and hedging took on sizable proportions, and in 1773 the London Stock Exchange came into being. A new monied class now began to vie with industrialist and merchant for a share of the "surplus" through investment and banking operations, and the frenzied finance of modern times was ushered in. Likewise, attention became focused here and there upon problems long neglected by the classical economists.⁴⁵

The industrial, trading, and financial transformations just described paved the way for the establishment of the modern business economy, the most significant economic development of the period. The essential elements of any business system are: sufficient political security for the regular enforcement of trade contracts; some recognized medium of exchange; the accumulation of surplus stocks of goods; and the conduct of business enterprise for the primary purpose

⁴⁵ Cf. Abbott, *op. cit.*, II, 173 ff.; Georges d'Avenel, *Histoire Économique de la Propriété, des Salaires, des Denrées, et de tous les Prix en Général depuis l'an 1200 jusqu'en 1800* (7 vols.; Paris, 1894-1926); Birnie, *op. cit.*, pp. 163-171, 197-204, 250-252, 280-291; Jean Bodin, *Les Paradoxes du Seigneur de Malestroict, . . . avec la Réponse de Jean Bodin Ausdicts Paradoxes* (Paris, 1578), and *La Vie Chère au XVI Siècle, la Response de Jean Bodin à M. de Malestroit, 1568*, ed. Hauser (new ed.; Paris, 1932); Jean de Bodin de Saint-Laurent, *Les Idées Monétaires et Commerciales de Jean Bodin* (Bordeaux, 1907); Cunningham, *The Growth of English Industry and Commerce*, Vol. II, Part I, pp. 446-452, 489-494, Part II, 687 ff., 822 ff.; David Davies, *The Case of Labourers in Husbandry Stated and Considered in Three Parts* (Dublin, 1796); Elgin E. Groseclose, *Money: The Human Conflict* (Norman, Okla., 1934), pp. 76-148; Earl J. Hamilton, *American Treasure and the Price Revolution in Spain, 1501-1650* (Cambridge, 1934); William Jacob, *An Historical Inquiry into the Production and Consumption of the Precious Metals* (Philadelphia, 1832), pp. 205-427; Knight, Barnes, Flugel, *op. cit.*, pp. 322-337; Lipson, *op. cit.*, II, 184-370; Meredith, *op. cit.*, pp. 215-228; Richard D. Richards, "A Pre-Bank of England Banker," *Economic History*, I, Jan., 1928, pp. 335-355, "The Pioneers of Banking in England," *Economic History*, I, Jan., 1929, pp. 485-502, "The Bank of England and the South Sea Company," *Economic History*, II, Jan., 1932, pp. 348-374, and "Mr. Pepys and the Goldsmith Bankers," *Economic History*, II, Jan., 1933, pp. 500-520; Rogers, *A History of Agriculture and Prices in England*, Vols. IV and V, and *The First Nine Years of the Bank of England* (New York, 1887); Jacob Schoenhof, *A History of Money and Prices* (New York, 1896), pp. 71-212 (but see Bodin, *op. cit.*); Abbott P. Usher, "The Origins of Banking: The Primitive Bank of Deposit, 1200-1600," *Economic History Review*, April, 1934, pp. 399-428; Waters, *op. cit.*, pp. 279-290. Cf., also, Mitchell, *Business Cycles*, pp. 3 ff., 70-74, and references cited in n. 1 of the next chapter. Crises occurred in 1763, 1772, 1783, 1793, and even more violent fluctuations followed the Napoleonic Wars.

of profit-making. Neither barter nor a household or manorial economy involves all of these elements.

Various ancient states had developed business economies—maritime and merchandizing trade, money and banking facilities, and profit-making ventures having been elaborated to a considerable degree; but what distinguishes the modern business economy from earlier forms is its extension to industry and agriculture, particularly to the mass production of fabricated commodities with the use of highly developed machine technique, made possible by such scientific advances as those outlined.⁴⁶

SECTION 114. CHANGES IN ECONOMIC THOUGHT AND POLICY

While important scientific and technological changes were in process and, as a result, industrial and political units were growing considerably more complex and the modern business system was more and more extending its scope, the world of economic thought and policy remained curiously stagnant. For the most part during the transition period, the scholastic process of rationalizing and apologizing for things-as-they-are went on unabated. The subtle medieval dialectic, with its apologetics for the *status quo*, survived

⁴⁶ Cf., also, Charles A. and Mary Beard, *The Rise of American Civilization* (2 vols.; New York, 1927); John R. Commons, *The Legal Foundations of Capitalism* (New York, 1924); Hammond, *The Rise of Modern Industry*; John A. Hobson, *The Evolution of Modern Capitalism*; Alfred Marshall, *Industry and Trade* (2d ed.; London, 1919); Frederick L. Nussbaum, *A History of the Economic Institutions of Modern Europe* (New York, 1933); Henri E. Séé, *Modern Capitalism: Its Origin and Evolution*, tr. H. B. Vanderblue and G. F. Doriot (2d ed.; London, 1931); Werner Sombart, *Der Moderne Kapitalismus* (3 vols., new ed.; Munich, 1928), and *L'Apogée du Capitalisme* (Paris, 1932); Richard H. Tawney, *The Acquisitive Society* (New York, 1920); Veblen, *The Theory of Business Enterprise*.

For use of scrip and barter in the United States, see n. 1, chap. xxvii, above. Frontier life in the United States for a time provided greater opportunity for agricultural development than had previously been possible, except that the inexorable working of the tribute-rendering mechanism ultimately reduced American agriculture to the unenviable position in which it finds itself today. Cf. Ernest L. Bogart, *Economic History of the American People* (2d rev. ed.; New York, 1935), Parts I and II; Walter W. Jennings, *A History of Economic Progress in the United States* (New York, 1926), Parts I, II, III, pp. 3-373.

For a beginning of comprehensive histories of prices and wages now being carried forward in a number of countries, including the United States, see: Sir William Beveridge, *Prices and Wages in England from the Twelfth to the Nineteenth Century* (New York, 1939), Vol. I, the first of a series of four volumes.

with merely a change in emphasis and direction as to what form of dominant tribute-taking was to be regarded as "proper" or "right."

With the triumph of monarchy and nationalism in the sixteenth, seventeenth, and eighteenth centuries, a reawakened doctrine of mercantilism succeeded the doctrine of the "just price," the medieval tribute-rendering structure being retained unquestioned, except that now most of the "surplus" went to king, merchant, and industrialist, while monarchical regulation was extended to the most commonplace of economic activities. Renascent mercantilism was part of the nationalistic policy of growing monarchies in bringing territorial unity out of feudalism and in enhancing the wealth and commercial power of a given state in competition with other states. In England, unity had been achieved and feudalism was already on the wane by the fourteenth century, as has previously been indicated, but on the Continent, where disruptive feudal influences continued four to five centuries longer, various local tolls and exactions obstructed the free movement of trade and the extension of the business economy. The supposed virtue of encouraging exports and hampering imports, the alleged necessity of collecting a large national stock of precious monetary metals to assure the state's wealth and prosperity, and the related conception that wealth can be measured primarily in terms of gold and silver were some of the mercantilistic tenets which were carried into effect and which were later criticized severely by Adam Smith.⁴⁷

After from two to three centuries of mercantilistic practice, however, increasing disregard of onerous restrictions by merchant adventures and industrial barons and the complete collapse under their

⁴⁷ Among important modern works on mercantilism are the following: Birnie, *op. cit.*, pp. 172-182; Blanqui, *op. cit.*, pp. 238-288; Bogart, *op. cit.*, pp. 162-179; Charles W. Cole, *French Mercantilist Doctrines before Colbert* (New York, 1931); René Gonnard, *Histoire des Doctrines Économiques* (3 vols.; Paris, 1921), I, 83-292; Haney, *History of Economic Thought*, pp. 111-165; Paul Harsin, *Les Doctrines Monétaires et Financières en France* (Paris, 1928); Eli F. Heckscher, *Mercantilism*, tr. Shapiro (2 vols.; London, 1935); John W. Horrocks, *A Short History of Mercantilism* (London, 1925); Jennings, *op. cit.*, pp. 89-108; Knight, Barnes, Flugel, *op. cit.*, pp. 314-322; Lipson, *op. cit.*, III, 1-206, *passim*; Gustav F. Schmoller, *The Mercantile System*, tr. Ashley (New York, 1931); Jean C. L. Simonde de Sismondi, *Nouveaux Principes d'Économie Politique* (2 vols., 2d ed.; Paris, 1827), I, 27-36; Spann, *The History of Economics*, tr. Paul, pp. 29-58; Toynbee, *op. cit.*, pp. 72-84.

own weight of many of the regimented restraints, cleared the way for the discrediting of mercantilism by the physiocrats and Adam Smith, who launched the opposing doctrine of *laissez faire*—the theory that national greatness and prosperity result, not from coercive regulation, but from what came to be redefined as a “natural order” of economic harmonies, automatically regulated by the spontaneous actions of individuals in their own interest.

The doctrine of *laissez faire* apparently first took firm hold in France, where in the eighteenth century merchants and physiocrats employed it in their fight against mercantilistic restrictions. In England, Adam Smith promulgated it at the close of that century and it became current there with John Stuart Mill in the middle of the nineteenth century. In the end, for one reason or another, *laissez faire* swept the realms of theory and policy alike and, at least so far as the older form of modern mercantilism was concerned, occasioned the abandonment of that doctrine. The acceptance of *laissez faire* as a national policy accelerated the spread of the modern business economy.

Theoretically, certain of the assumptions of *laissez faire* were highly important, since they allegedly took into account the welfare of every citizen and not simply that of a powerful few. In the main, these assumptions were: (1) that every individual naturally and with thoroughgoing rationality pursues his own interests; (2) that he can best follow his bent if left to himself, unhampered by governmental restriction or private organization; (3) that, in freely pursuing his own interests, each individual, whether employer or workman, will amass the maximum of wealth for himself; and (4) since national wealth is merely the sum of individual fortunes, that the nation's wealth and happiness must under *laissez faire* reach their maximum.

Left out of account, however, by Adam Smith and his followers, were certain practical conditions and developments which in large part nullified their theoretical assumptions. These nullifying factors were in part: (1) The medieval tribute-rendering mechanism was still intact in its legal, judicial, and practical aspects, sharply differentiating the hereditary property-holding rights and privileges of the few from the obligations and social submergence of the many.

(2) These feudal restrictions and traditions made it relatively easy for those who had money and property to gain more money and property, while rendering it difficult for others to secure even a foothold. (3) The assumption of a predominance of rationality in economic behavior was not in accord with the facts. (4) The supposition that a removal of mercantilistic restrictions would leave competition free, either as between the ruling classes and the masses or as between competing merchants and industrialists, was thus unwarranted, both because of the continued existence of the feudalistic mechanism of political and economic controls and because of the lack of any regulation to prevent merchants and industrialists from getting together and restricting competition in their own interests.

It did not take long for some of the shortcomings of laissez faire to become manifest. Women and children were treated scandalously in the factories, so that it had to be conceded that probably they did not know "their own interests"; factory conditions in general brought new industrial uncertainties to wage earners until their lot became notoriously bad; monopolies developed rampant, despite the vaunted benefits alleged to flow from "free enterprise" in preserving competition. These difficulties brought new legislative restrictions, though of a somewhat different character from the older mercantilistic decrees.

But despite all this, the unreal assumptions of laissez faire accorded so well with the aims of growing business and with the inchoate structure of economic thought previously devised by ecclesiastical and scholastic dialectic in connection with the doctrine of the "just price," that the practical difficulties (where recognized) came to be looked upon by businessmen and economists alike as mere aberrations or exceptions to their alleged beneficent "laws of nature." Nor did this further refinement of scholastic dialectic stop here. With the launching of Benthamism, utilitarianism, marginalism, and Austrianism, other powerful sanctions were added to the "natural order of economic harmonies." Henceforth, the classical justification via laissez faire departed somewhat from the Smith-Ricardian "cost" pattern for the new pattern of "utility," and the condemnation of governmental and monopolistic restrictions was shifted to the contention that these do not allow "free play" to consumer demand.

The "natural order of economic harmonies" was still retained, but in measuring "pleasure" and thus "value," the emphasis was changed from a "natural pursuit of one's own interest" to the prices consumers are "willing" or "offer" or are "prepared" to pay. Later came the final refinements of eclecticism, demand and supply being viewed as "two sides of the same shield" or as the "two blades of the price-setting shears," and the classical structure was complete.

To what an extent this whole structure of classical and neoclassical economic thought, despite its surface plausibility, is interpenetrated with unwarranted assumption and false reasoning, we have previously had occasion to examine at length.⁴⁸ Here we are chiefly concerned to call to mind the major respects in which, with the abandonment of mercantilism, changing economic conditions and the establishment of modern business as an outgrowth of scientific advance did not conform to the "natural" course of events predicted by *laissez faire*.

That the latter failed in its theorizing to take into account the conditioning role of medieval economic institutions has already been pointed out. Its further failures in prediction and in even surface consistency may in part be summarized as follows: (1) Despite the withdrawal of governmental interference, corporate business organization underwent no natural decline; on the contrary, its spontaneous growth is one of the outstanding features of modern industry and business; hence the arguments of *laissez faire*, based upon an inevitable victory for individual initiative and enterprise (if left to themselves), lose much of their significance. (2) The development of monopolies and combines has been mentioned above; they grew apace as corporate enterprise grew, until we witness the incongruous spectacle of governments issuing regulations to break them up, in the name of a *laissez faire* one of whose primary protests was against state interference. (3) Similarly, we observe state after state passing factory acts to remove some of the "unhappy" conditions caused by a *laissez faire* which insisted that happiness could be brought about by "natural laws" alone. (4) Again, as large-scale industrialism and business developed, salaried managers increasingly took over the actual conduct of business and the profit incentive shifted to the

⁴⁸ Cf. Parts II and III, above.

investment field, so that "individual enterprise" now centered for the most part upon the holding of stocks by absentee owners, which is once more contrary to what laissez faire contemplated. (5) Free traders, in endeavoring to remain faithful to the precepts of laissez faire, overlooked the fact that, through formal and informal combines and monopolies, large-scale producers have been increasingly able to exercise control over prices, while the unorganized consumer (who under utility economics should have had complete freedom of choice) became less and less able to do anything but accept the price-ranges that confronted him. (6) Modern production has, in fact, become more and more regulated, both by governmental enactment and by internal controls. American antitrust legislation and European cartels were already established before the first World War; and since that time, not only has there been a further increase in industrial combination and restrictive legislation, but projects of national planning which deliberately link the state with economic forces have become widespread, whether we look today at Russia, Italy, Germany, Mexico, or the United States. In the realm of production, the tenets of laissez faire seem nowhere to have worked out as predicted. (7) As for consumption, the disadvantageous competitive position of the unorganized consumer is now well known. In addition, after Austrianism rose to favor, it was soon pointed out that, where there is great inequality of income, price-offers as such cannot in any comparable sense measure underlying "pleasures" or "utilities."⁴⁹ A more equitable distribution of income and wealth would doubtless be conducive to greater general satisfaction, and this might well be brought about by state control and graduated income and inheritance taxation, thus again contravening one of the basic "noninterference" tenets of laissez faire in the interests of achieving another one of its tenets, the "maximum of satisfaction" or the "greatest happiness of the greatest number." (8) Also, while the economic power of the consumer has been increasingly weakened by large-scale corporate control and absentee stockholdings, his

⁴⁹ Cf. Chase and Schlink, *Your Money's Worth*; Kallet and Schlink, *One Hundred Million Guinea Pigs*; Phillips, *Skin Deep, the Truth about Beauty Aids*. Cf., also, Charles E. Persons, "Marginal Utility and Marginal Disutility as Ultimate Standards of Value," pp. 547-578.

political power has become progressively greater with the growth of democracy, under which he is exercising more and more direct economic interference in the interests of public welfare, again in contravention of the "natural harmonic" assumptions of laissez faire. Here conscious democratic control is definitely replacing a let-alone governmental policy. (9) Finally, with respect to the alleged comprehensiveness of the "natural order of economic harmonies," a most important group of modern economic phenomena is left almost entirely out of account by laissez faire economists, namely, that complex of events known as business cycles.⁵⁰

In the main, laissez faire appears simply to have added another sanction to the already existing scholastic apologetics, the sanction of a supposed mechanically operating natural law of "competition" or of "economic harmonies" under an allegedly "free enterprise," which along with the assumptions of objective value, natural justice, and a divine economic order, established by the earlier medieval rationalization of things-as-they-are, merely served to give further credence to the classical structure of thought. This rationalization, at the same time, continued to hold the wage earners to their economic status, at least until they substituted direct political action for the wishful thinking of the upper classes. If the people benefited at all under the change to laissez faire, it was largely because of scientific and technological advance coupled with new governmental enactments which they were able to secure in their own interests, hardly because of the let-alone laissez faire policy in its practical workings, although *theoretically* it sounded promising enough, certainly much more "equitable" in its fundamental implications than the *status quo* doctrine of the "just price" or the imperialistic decrees of mercantilism. In its *practical* workings, the doctrine of laissez faire seems chiefly to have enabled merchants and industrialists to consolidate their control over a tribute-rendering economic structure, in the wake of revolutionary changes in industry brought on by technological and scientific advance, as medievalism gave way to modern business.⁵¹

⁵⁰ Cf. the following chapter.

⁵¹ For recent works on laissez faire and state control, see: Stephane Bauer, "Origine Utopique et Métaphorique de la Théorie du 'Laissez Faire' et de l'Équilibre Naturel," *Revue d'Économie Politique*, XLV (Nov.-Dec., 1931), 1589-1602; Birnie, *op. cit.*, pp. 292-303, 323-334; Blanqui, *op. cit.*, pp. 299 ff.; John M. Clark, *Social Control of Busi-*

SECTION 115. SUMMARY AND CONCLUSIONS AS BEARING
UPON ECONOMIC THEORY

In examining "early and rude" conditions through the eyes of the anthropologists we find little if anything of the "embodied-labor" exchanges or the "rationalized utilities" of the classical economists. Earliest savagery with its emphasis upon self-preservation, nest-pilfering, killing to eat, and gift-giving and sharing within the closed circle of the primitive household, evidently preceded economic exchange of any kind. Barter, a later development, was probably never "pure" in the classical sense, in that irrational primitive emotions and passions were inevitably present and the physically and intellectually weaker were always at the mercy of the stronger. Tests of primitive tribal strength quickly changed voluntary gift-giving into enforced tribute. And as settled communities took form, slave and serf labor as well as the labor of domesticated animals, entered predominantly into the prices of exchangeable commodities. Instead of the labor or the utility of intellectually and emotionally free equals, rationally calculated and assessed and freely exchanged, we must in

ness; George D. H. Cole, "Laissez Faire," *Encyclopedia of the Social Sciences*, IX, 15-20; Carl W. Hasek, *The Introduction of Adam Smith's Doctrines into Germany* (New York, 1925); W. Stanley Jevons, *The State in Relation to Labour* (4th ed.; London, 1910); Dexter M. Keezer and Stacy May, *Public Control of Business* (New York, 1930); John M. Keynes, *The End of Laissez-Faire* (London, 1927); Paschal Larkin, *Property in the Eighteenth Century with Special Reference to England and Locke* (New York, 1930); Lewis L. Lorwin and A. Ford Hinricks, "National Planning," in *Final Report of National Planning Board, 1933-1934* (Washington, 1934), pp. 63-115; Melchior Palyi, "The Introduction of Adam Smith on the Continent," in *Adam Smith, 1776-1926* (Chicago, 1928), pp. 180-233; David G. Ritchie, *The Principles of State Interference* (3d ed.; New York, 1902); Louis A. Ruffener, *Price, Profit, and Production* (New York, 1928), pp. 420-424, 697-722; Spann, *op. cit.*, pp. 66-153; Jacob Viner, "Adam Smith and Laissez Faire," *Adam Smith, 1776-1926*, pp. 116-155.

Laissez faire was the economic phase of the general doctrine of liberalism, regarding which see Larkin and Ritchie cited above. Also: Albert V. Dicey, *Lectures on the Relation between Law and Public Opinion in England during the Nineteenth Century* (London, reprinted, 1924); Allen O. Hansen, *Liberalism and American Education in the Eighteenth Century* (New York, 1926); Leonard T. Hobhouse, *Liberalism* (New York, 1930), pp. 7-252; Harold J. Laski, *Authority in the Modern State* (New Haven, 1919), pp. 19-122; Kingsley Martin, *French Liberal Thought in the Eighteenth Century* (London, 1929), pp. 170-234, 277-308; Ludwig Mises, *Liberalismus* (Jena, 1927); Guido de Ruggiero, *The History of European Liberalism*, tr. Collingwood (London, 1927), pp. 1-476; Richard H. Tawney, *Equality* (London, 1931), pp. 3-280.

the development of early economic institutions seemingly reckon primarily with enforced transfers of goods and services through pillage, tribute, slavery, and serfdom, with irrational emotions and passions, and with avarice, cupidity, and greed.

Nor is there apparently any material change in the picture with further growth in economic institutions. Antiquity developed a money economy of an advanced order with a complex market and price system, which reached its apogee in the Roman Empire. This development was pagan in character. It was inextricably linked with conquest, pillage, tribute, and slavery; it became decidedly favorable to the seller in its policy of *caveat emptor* and in its legal and judicial processes (as the Empire extended its influence as a trader); and it showed little regard for the ordinary worker, who was for the most part a chattel like any other beast of burden.

The later manorial economy of feudalism and serfdom was more primitive in some respects and more advanced in others; but as concerns classical economic theory there seems to be just as great a lack of concordance. Feudal serfdom was, like the Roman variety, based upon conquest and subjugation and was finally stabilized into a thoroughgoing tribute-rendering mechanism, at first in terms of payments in kind and services from vanquished denizens and later in terms of commuted money remittances of equal if not greater advantage to the conquerors. The tribute was divided among feudal lord, ecclesiastical prelate, and king, who on the one hand disposed of their surpluses in exchange for comforts and luxuries at the great fairs and on the other hand made retail purchases in near-by towns as commutations of tribute into money payments expanded.

The exchange operations of the medieval fairs were apparently no freer or more rational in character than earlier trading practices. The ancient customs of Rome and the East were for the most part continued. Goods were assembled for exchange at great risk to the traders. Wherever possible, tribute was exacted for safe-conduct on the journey to the fairs, and heavy tolls were charged at the fairs. The goods continued to be fabricated through the labor of slaves and serfs or they were acquired through pillage or shrewd dealings in out-of-the-way places at bargain prices to be sold at the fairs for all the traffic would bear. Rational calculations and pure barter

between economic equals were thus evidently of minor consequence. Of much more importance was the continued influence of pillage and tribute, the enforced transfer of goods and services to dominant overlords, and the hazards of medieval travel. The same primary considerations still predominated: "A glittering bauble, a persuasive seller, the play of primitive emotions and passions, avarice, cupidity, and greed pitted against the fruits of exploitation and theft."

While ancient trading customs controlled wholesale exchanges at the fairs, the doctrine of the medieval "just price" aimed to protect the buyer as against the seller and to maintain the feudal *status quo* between tribute-renderer and tribute-taker in commutations of goods and services into money payments and in retail purchases in the towns. As has been said, it was contended (logically enough) that what the serf could live on in bondage he could live on when freed. Thus political, legal, judicial, intellectual, and ecclesiastical power all combined to keep the medieval tribute-rendering structure intact.

This compact and powerful structure naturally possessed a tremendous resistance to change, and it is still difficult to say whether the commercial, mechanical, and industrial revolutions growing out of the technological and scientific advances of recent centuries have made any essential inroads upon it even in the great modern capitalistic nations. Many outward changes have, to be sure, occurred. Feudal provinces have been united into kingdoms, monarchies, and democracies. The manorial economy has been replaced by large-scale factories and huge corporations. Tribute to feudal lord and king has been eclipsed by profits, interest, and dividends to merchant adventurers, barons of industry, and potentates of finance. But despite these vast political, technological, and industrial changes, the economic lot of the masses has not been correspondingly bettered, nor has the scholastic rationalization of feudal controls been substantially altered.

With the rise of the economic doctrine of mercantilism on the heels of the triumph of monarchy and nationalism there was not in reality an abandonment of the doctrine of the "just price," since the legal, judicial, and intellectual sanctions of which it was a part suffered little, if any, change. As pointed out, mercantilism had other objectives. It sought to make the nation as such powerful and pros-

perous and it had no interest in reordering the relation of the masses to the dominant classes. The tribute-rendering economic mechanism as a whole remained virtually unaffected except that merchants and industrialists now became more powerful than feudal nobles, grew impatient of onerous mercantilistic restrictions, and with the promulgation of laissez faire seized the opportunity of securing a free hand in utilizing the existing economic mechanism for their own profit. In this coup d'état, they were ably assisted by the classical economists who further rationalized the *status quo* in terms of alleged economic harmonies and natural economic laws (residues of tribute-rendering practices and traditions of the past) which, they maintained, mere man-made regulations (of the present) must not presume to defile.

As for the lot of the masses, recent investigations have made it abundantly clear that, for example in 1929, the best year of American business history, the upper 10 per cent of the people secured almost half the income or more than one hundred times as much as the bottom tenth, accounted for 86 per cent of the money savings, most of which was put to unproductive use, and owned around 90 per cent of the nation's wealth. Such inequality in wealth and income would seem to indicate rather pointedly that in the United States the tribute-rendering economic structure remains essentially intact, quite apart from scientific advance which has raised the standard of living for all and under democracy has increased the personal freedom and political power of the people. Such disparities of wealth and income become even greater when depression, as in the thirties, visits the masses with widespread unemployment and poverty.⁵²

In short, while established economic theory has remained stagnant and medieval, the mechanical and industrial revolutions have probably turned a scarcity economy into one of potential plenty and have enormously enriched the dominant classes without in any proportionate sense affecting the lot of the working people and without in any way mitigating the tremendously important new problems of unemployment, poverty, and depression, which machine production

⁵² Cf. recent studies of income, consumption, production, capital formation, employment, and economic progress, by the Brookings Institution, Washington, D. C., and by the National Bureau of Economic Research, New York City; also, the Federal Trade Commission, *Report on National Wealth and Income* (Washington, D. C., 1926), and the analysis of these and similar studies in chap. xxix, below.

and uncertain world trade brought with them. Only as the common people have secured an increasing measure of political power for themselves have they apparently succeeded through modern social legislation in making any headway at all.

Because of scientific and technological advance, in place of the feudal system, with its serfdom and its at least crude regard for the maintenance of a minimum of subsistence for peasants and oxen and with its tribute-rendering mechanism for draining off what was left into the coffers of conqueror nobles and ecclesiasts, there has come to be substituted a vast machine industry built upon the same tribute-rendering base. This modern mechanism requires a cumulatively decreasing quota of men and beasts to keep it operating effectively, brings an increasing yield of tribute-profits to its relatively few owners, and during periods of depression-derangement renders still worse the condition of those who labor intermittently for the machine.

The irony of the present situation does not seem to be that technological advance or mass production is in any sense at fault, but rather that politically free people (as in the United States) have allowed modern industry to be used as a tribute-rendering mechanism for a favored few instead of transforming it into a tool of reasonable well-being for all.

Laissez faire has now apparently followed mercantilism and the "just price" into the limbo of outworn economic doctrines, and a new policy is taking form, the policy of planned control of industrial and commercial activity, sometimes in the interests of the employer or of an oligarchy, as in Fascism, Hitlerism, and Bolshevism, sometimes in the interest of democracy and public welfare, as now appears to be the situation in the United States. In any form, however, planned control in the modern world is not a simple matter, for it must take into account a number of complex factors of which medieval feudal society knew nothing.

In democratic America various possibilities may already be discerned in the new economic policy. Where planned control endangers our present exceedingly effective productive system, it must be viewed with uneasiness. To destroy our present productive effectiveness would be to kill the goose that lays the golden eggs. Where

planned control corrects flagrant business wastes and abuses, protects workers against industrial hazards and business depression, and levels off the peaks and troughs of the business cycle, it serves a decidedly constructive, though still secondary, purpose from the point of view of the major economic problems confronting the nation. Only where it directly touches and progressively corrects the most glaring maladjustments of wealth and income resulting from the continuance of medieval tribute-rendering controls can it apparently be in a position to grapple successfully with those problems, as will be indicated more fully in the pages that follow, especially in Chapter XXIX.

CHAPTER XXVIII

BUSINESS CYCLES AND MODERN BUSINESS ACTIVITY

WHILE ORTHODOX economic theory settled into a pool of stagnant scholastic thought, which reflected only inconsequential or illusory details of the actual institutional process inherited from feudalism and which failed to reveal the fact that merchants and industrialists were securing increasing control of the economic system, farsighted observers were here and there drawing attention to phenomena which to them seemed to be more typical of the modern business economy as a whole. The significance of the recurrent business crises which followed the Mississippi and South Sea Bubbles of the early eighteenth century, and which took on greater scope after the Napoleonic Wars, was becoming fairly obvious to a few clear-headed students at the beginning of the nineteenth century.¹

In so far as these observers pointed primarily to what seemed like occasional breakdowns of the business system, such as crises and panics, ready answers were forthcoming from the classical theorists, who attempted to make light of the occurrences by designating them as wholly fortuitous aberrations or disruptions of the assumed static order of economic harmonies and who tried to account for them out of hand on the score of sun spots, bad harvests, plagues, epidemics, or wars, some of which undoubtedly acted as important contributory causes.² But in so far as such observers not only saw crises and panics in the broad picture of market and price movements, but also

¹ Cf. Albert Aftalion, *L'œuvre Économique de Simonde de Sismondi* (Paris, 1899); Mentor Bouniatian, "Geschichte der Handelskrisen in England im Zusammenhang mit der Entwicklung des Englischen Wirtschaftslebens, 1640-1840," in *Studien zur Theorie und Geschichte der Wirtschaftskrisen* (München, 1908); Clement Juglar, *Des Crises Commerciales et de leur Retour Périodique en France, en Angleterre et aux États-Unis* (2d ed.; Paris, 1889); Mitchell, *Business Cycles*, pp. 3-11; Simonde de Sismondi, *Nouveaux Principes d'Économie Politique*; John Wade, *History of the Middle and Working Classes* (London, 1833).

² Cf. Mitchell, *Business Cycles*, pp. 3-4, 451-452; also, his footnotes on these pages.

saw recurrent contractions and expansions of business activity, the classical answers fell far short of being satisfactory and better explanations were soon being attempted by the nonconformists.

SECTION 116. BUSINESS-CYCLE THEORY

As time went on, business-cycle theories were considerably elaborated, until today there exists a voluminous literature on the subject.³ The best of the currently held economic explanations are briefly sketched below, omitting for the present purpose physical and psychological theories based upon changes in solar radiation, crop yields, planetary positions, weather conditions, mass emotions, and birth and death rates, and likewise omitting broad institutional theories based upon irregular innovation and social progress factors, some of which undeniably have a further important bearing on the problem but which are more or less extraneous to the modern business economy as such.⁴

First: Business cycles, it is now hypothesized quite generally, arise primarily out of the businessman's quest for profits under existing economic arrangements. In prosperity, because of expansion illusions, there ensue inflated increases in business confidence, capitalization, and the placing of orders, which under the system as it exists become progressively greater than increases in consumer ability to purchase, until effective consumer demand can no longer sustain the profit-yielding superstructure, whereupon deflation and depression ensue. In this alternation of expansion and contraction, disruptive spreads and strains are created, followed by their retraction and dissipation preliminary to another period of expansion. Business expansions and contractions may be regarded from the points of view of income and spending, production and consumption, or credit creation

³ Cf. Eugen von Bergmann, *Die Wirtschaftskrisen: Geschichte der Nationalökonomischen Krisentheorien* (Stuttgart, 1895); John M. Clark, *Strategic Factors in Business Cycles* (New York, 1934); Edward D. Jones, *Economic Crises* (New York, 1900); Jean Lescure, *Des Crises Générales et Périodiques de Surproduction* (3d ed. rev.; Paris, 1923), pp. 313-412; Harry E. Miller, "Earlier Theories of Crises and Cycles in the United States," *Quarterly Journal of Economics*, Feb., 1924, pp. 294-329; Max Wirth, *Geschichte der Handelskrisen* (4th ed.; Frankfort, 1890).

⁴ Cf. Mitchell, *Business Cycles*, pp. 49-53; also, his article on "Business Cycles," *Encyclopedia of the Social Sciences*, III (1930), 98-100, from which a thoroughly comprehensive view of business-cycle theories may be secured.

and cancellation, each of which points of view has its more or less exclusive advocates in business-cycle theory.

Second: Business cycles are thus also viewed as arising out of a discrepancy within the existing economic system between consumer income and the prices of consumable commodities and services. In good times, the lag of wages and overhead costs behind increased commodity prices and volume of sales swells business profits but at the same time renders consumer income cumulatively incapable of matching the increased financial value of the goods produced and thus more and more inadequate for taking them off the market. This discrepancy is particularly enhanced by the largely unproductive savings of individuals in the higher income brackets and by the surpluses of the larger corporations, which perforce increase working capital and reserves against bad times and the repayment of loans, but which at the same time swell the unproductive total of sterile funds. A partial but by no means complete corrective is supplied by resultant productive expansions which add somewhat to consumer income but with a similar spread between wages and profits, so that the original discrepancy is not in reality overcome. Coupled with this cumulative relative decrease in effective purchasing power as expansion continues, increases finally appear in the cost of doing business, as obsolescent equipment and less satisfactory locations are drafted into use and as financial facilities become overextended. Whereupon prospective profits as well as consumer purchases decrease, expansion ceases, further stresses are built up, and the countervailing deflationary processes set in.

Third: Business cycles are likewise thought of as arising primarily out of changing rates of production and consumption.

(a) In general, during prosperity (because of the aforementioned inflationary quest for profits and the increasing spread between consumers' income and the total price of consumers' goods under existing economic arrangements) business competition and overexpansion lead to what is designated as general "overproduction" or general "under-consumption," culminating in the offsetting contractive movement, during which consumption overtakes production again and the foundation is laid for another business upturn.

(b) More particularly, business cycles from the production-con-

sumption point of view are sometimes visualized as arising out of overexpansion in new construction activities. As the most significant part of the inflationary spreads and strains mentioned, small increases in the demand for consumers' goods, during prosperity, are thought by some theorists to lead to much more extensive increases in new plants and the supply of stocks, until overinvestments and overcommitments in these respects become general, the market is glutted, and the counteracting contractive processes set in to wipe out the surpluses and to restore the balance between consumption and production.⁵

Fourth: Business cycles are finally viewed as arising primarily out of an abuse of banking facilities. While in good times the competitive quest for profits is proceeding and the indicated strains within the modern business system are multiplying, financial processes become increasingly and more hazardously involved. Banks tend to extend credit without due regard to public interest, until reserves approach exhaustion and restrictions upon further extensions have to be imposed. To reduce borrowing, discount rates are raised, but this action usually comes too late and serves only to hasten the collapse of already existing overcommitments. Bankruptcies now ensue, a sequel which endangers the whole credit structure and brings on further contractive processes, if not an actual financial panic and breakdown. As depression develops and business activity subsides, cash once more begins to accumulate in the banks, reserves increase, discount rates are lowered to encourage borrowing, and the credit basis is prepared for another upturn.

The modern market and price system as a whole has thus come to be viewed by business-cycle theorists not in terms of the simple static structure of the classical economists but in terms of a very complex and variable mechanism, alternately expanding and contracting under the quest for profits like a Gargantuan bellows or accordion, or as some modern astronomers assume the universe to be expanding and contracting. This pulsating mechanism appears periodically to puff itself up, like Aesop's frog that vainly aspired to the size of an

⁵ Recent studies do not seem to bear out this particular theoretical contention, viz., that new capital formation ever gets very much ahead of consumer demand. Cf. Harold G. Moulton, *The Formation of Capital*, pp. 140-154; also, chap. xxix, below.

ox, only to find itself later in ignominious fragments that need to be put together again, or in the condition of a dried-out sponge from which all the substance has been wrung. In other words, the modern business economy constantly creates strains and stresses in its expansive phases which it then alternates with cyclical disruptions and dissipations in its contractive phases.⁶

SECTION 117. MODERN BUSINESS CONDITIONS AND INTERRELATIONS

Further study seems to confirm the major part of the foregoing theoretical explanations. Business cycles are at least in part an outgrowth of complex conditions of strain and relaxation set up in the existing institution of the market and price system through the quest for profits, for the most part, today, by large-scale business corporations.⁷ Cycles may at present best be viewed as running their course in terms of expansion, recession, retraction, and revival, rather than in terms of panics and crises only. So viewed they average from about three to six or seven years in duration. They do not

⁶ Cf., also, Arthur B. Adams, *Economics of Business Cycles* (New York, 1925), and *Profits, Progress, and Prosperity* (New York, 1927); Albert Aftalion, *Les Crises Périodiques de Surproduction* (2 vols.; Paris, 1913); Johan Åkerman, *Om Det Ekonomiska Livets Rytmik* (Stockholm, 1928); Elmer C. Bratt, *Business Cycles and Forecasting* (Chicago, 1937); Mentor Bouniatian, *Les Crises Économiques* (2d ed. rev.; Paris, 1930), *Crédit et Conjoncture* (Paris, 1933), and *Dépression, Progrès Technique, et Dévaluation* (Paris, 1935); John M. Clark, *Studies in the Economics of Overhead Costs* (Chicago, 1923); Hector Denis, *La Dépression Économique et L'histoire des Prix* (Bruxelles, 1895); William T. Foster and Waddill Catchings, *The Road to Plenty* (Boston, 1928), and *Progress and Plenty* (Newton, Mass., 1929); Alvin H. Hansen, *Business Cycle Theory* (Boston, 1927); Ralph G. Hawtrey, *Good and Bad Trade* (London, 1913), *Trade and Credit* (New York, 1928), and *Trade Depression and the Way Out* (London, 1933); Friedrich A. Hayek, *Monetary Theory and the Trade Cycle* (New York, 1933); Walter Heinrich, *Grundlagen Einer Universalistischen Krisenlehre* (Jena, 1928); John A. Hobson, *Economics of Unemployment* (New York, 1923), and *Poverty and Plenty* (New York, 1932); Alex L. Macfie, *Theories of the Trade Cycle* (London, 1934); Percival W. Martin, *The Limited Market* (London, 1926); Henry L. Moore, *Generating Economic Cycles* (New York, 1923); Mitchell, *Business Cycles* (Berkeley, 1913); Warren M. Persons, *Forecasting Business Cycles* (New York, 1931); Arthur C. Pigou, *Industrial Fluctuations* (London, 1927); Joseph Schumpeter, *Theorie der Wirtschaftlichen Entwicklung* (2d ed.; Munich, 1926), and *Business Cycles* (2 vols.; New York, 1939); Thorstein Veblen, *The Theory of Business Enterprise*.

⁷ Cf. Mitchell, *Business Cycles* (1928), pp. 105-107, 142-146, 182-183; also, Adolf A. Berle and Gardiner C. Means, *The Modern Corporation and Private Property* (New York, 1932).

today chiefly represent haphazard or random fluctuations in the modern business system but regularly recurrent changes. Although still more extensive studies of how they pass through their phases must be made before causal factors can be clearly isolated, this contingency should not be taken to mean that in the interim working hypotheses of importance cannot be tentatively accepted or that certain general conditions and interrelations are not already sufficiently evident.

There is now abundant evidence that the immediate motivating power behind the existing business economy is the pursuit of money profits, in which human welfare is incidental except as it serves the profit motive, and that this pursuit is controlled primarily by impersonal large-scale corporate organization rather than by the individual enterprise which Adam Smith and his followers expected to see overwhelmingly ushered in. Money profits, in turn, depend upon two important factors, upon the margin or spread between the buying and selling prices of goods in process and upon the volume of business done. Such appear to be the significant motivating elements in the modern business economy. Had the classical economists appreciated these facts, they would possibly have been less likely to obscure the main issues by their primary emphasis upon "sacrifices" and "utilities."

Despite Smith's protest against the organization of companies, these have developed into the basic units of modern industry, growing ever larger in size and greater in power as the modern business economy has spread, until today they have displaced individual enterprise as the focus of economic life. To what an extent they dominate the contemporary business scene in the United States will be demonstrated presently, as will also the fact that the larger and the more ubiquitous they are, the more are they affected by business cycles.⁸

In one sense, the large business corporation in its quest for profits is relatively free and in another sense it is more or less bound by the system which it exploits and of which it is a part. It is relatively free to determine what goods shall be made or not made and when

⁸ See chap. xxix, secs. 125-126, below. Cf., also, Berle and Means, *op. cit.*

they shall be placed upon the market or held back. It is still more free to hire or not to hire workers to carry on its processing operations and to throw millions of individuals out of employment as profits dry up at the end of the business cycle's expanding phase. This freedom of action by the large corporation, as it affects the lives of all but a small percentage of the people in a modern nation, is vastly greater than similar powers possessed by strictly business units in any previous economic system.

On the other hand, the modern business concern is an integral part of the market and price system. Its success in securing profits depends intimately upon consumer demand. Although it possesses considerable ability to mold such demand through high-pressure advertising and salesmanship as already pointed out,⁹ it is ultimately limited by the amount of purchasing power represented in that demand. It must also buy in a common market and sell in a common market. It must be governed by the prevailing system of prices and money practices, although, here also, it has not up to the present been powerless to exercise a considerable measure of control over them in its own interests. Industrially, there are many other threads of modern business interdependence, from the securing of necessary raw materials to the use of existing agencies of distribution, especially the common use of the railroads. Commercially, the bonds of purchase and sale provide additional ties of dependence. Financially, creditor-debtor relations unite all business concerns with the banking system. Interlocking ownership, directorates, and holding companies bring into existence still other intimate business relationships.¹⁰ Prices themselves form an intricate web of interconnections. Past prices are closely linked with present prices. Prices of consumers' commodities and of producers' goods are intimately dependent upon one another. The capitalized money value of business concerns moves up and down with the exigencies of the business cycle and stock-market speculations. And all prices vary more or less as a

⁹ See chap. xxvi, sec. 108, above.

¹⁰ Cf. Mitchell, *Business Cycles* (1928), pp. 100-105; also, Moulton, *op. cit.*, p. 147; *Report of the Federal Trade Commission on Utility Corporations*, Senate Document No. 92, in various parts, 70th Congress, 1st Session (Washington, D. C., 1934); Willard L. Thorp, "The Integration of Industrial Operation," *Census Monographs*, iii (Washington, D. C., 1924), pp. 159-265.

whole with the vicissitudes of a fluctuating medium of exchange.¹¹

Thus while the modern corporation is more independent than were business units in previous economic systems in employing or in not employing the nation's citizens as it sees fit, the modern institution of the market and price system, much more than previously, is a unified whole in its innumerable threads of interdependent processes and in the ceaseless pursuit of profits by business interests that are primarily unconcerned with the public welfare. This modern market and price pattern is wholly consistent with the business-cycle theories already outlined.

SECTION 118. RECENT HISTORICAL STUDIES OF BUSINESS CYCLES

Recent business-cycle studies have proceeded in three directions, historical, statistical, and theoretical. As already indicated, theoretical considerations have here come first, since it was out of the challenging hypotheses of such early nineteenth-century writers as Sismondi and Juglar that a rigorous investigation of the whole subject, quite apart from classical presuppositions, finally took form. At the same time, early theories of business cycles were somewhat contradictory and confusing. They emphasized the validity or non-validity of rival theories rather than the essential characteristics of cycles as such. And they stressed for the most part only such dramatic and occasional incidents as panics and crises, which approach lent some color to the classical contention of cycles as abnormal ruptures and restorations of a pre-existing normal order of harmonies or equilibria, which omitted what have since been found to be the most important features of the business-cycle pattern, and which arrived at a length of cycle-swing something like twice the length since obtained.¹²

Those aspects of the theoretical approach, however, which are now reconcilable with the results of historical and statistical investigation (and the current theories presented in a foregoing section are for the

¹¹ Cf. Mitchell, *Business Cycles* (1928), pp. 108-116; Frederick C. Mills, *The Behavior of Prices* (New York, 1927).

¹² Cf. Mitchell, *Business Cycles* (1928), pp. 3-7, 451-455. It should be held in mind here that crises and panics once played a much more important role in business cycles than they now do.

most part thus reconcilable) provide most important guiding criteria for further practical economic research.

What historical records add to the general picture of cyclical expansions and contractions of modern business activity are in the main as follows: Business-cycle phenomena are international in scope, the same cyclical phase appearing at about the same time in a number of advanced countries having modern business relations with one another. The cyclical pattern does not affect different industries even in the same country in a completely uniform way, so that in a given nation at a given time only the prevailing tone can be spoken of as designating a phase of the business cycle. These phases vary considerably from time to time in intensity and duration, from very moderate to violent fluctuations and from very short to fairly long swings. The average length of the prosperity phase is slightly longer than the average length of the depression phase and is accentuated in a period of rising wholesale prices and gold influx.¹³ The general process of passing from one cycle phase to the next is a continuous one in all nations having a modern market and price system. And, although the modern cyclical pattern always seems to maintain itself intrinsically, it is highly sensitive to random nonbusiness factors, such as wars, epidemics, floods, changing harvests, or technological and scientific advance. It is to a still somewhat unknown, but evidently secondary, extent conditioned by them.

A comparison of early business cycles in England (from 1558 to 1720) with more recent ones (from 1790 to 1925) has in fact demonstrated that so-called random factors once played a much more important role in business fluctuations than they have come to play in recent times. Nearly all the earlier crises were apparently associated "with famines, outbreaks of the plague, wars, civil disorders, irregularities of public finance, or high-handed acts of Government."¹⁴ But, as nations have become more stable and have exercised an increasing measure of control over such nonbusiness factors, the previously outlined processes connected with the ebb and flow of market and financial activity have taken on increasing significance in determining cyclical business change. Today these price and market

¹³ *Ibid.*, p. 421; also, Mitchell, *Business Cycles* (1930), p. 95 (table).

¹⁴ *Ibid.* (1928), pp. 75-82 (77).

processes are apparently of first importance, although nonbusiness factors have by no means completely lost their influence, especially in countries where the modern business economy has not yet been established.

The present development of the market and price system in different countries is very uneven. The proportion of workers engaged in farming, for instance, ranges from about 11 per cent in England and Wales to around 72 per cent or 75 per cent in India and China. The percentage in the United States has recently dropped from 36 to 20 per cent. The amount of business enterprise and thrift exhibited by different peoples also varies considerably. Monetary and banking systems the world over are far from uniform, the outstanding differences as bearing on business cycles being the extensive use of bank checks in Anglo-Saxon countries as compared with the almost negligible employment of them in other countries. Finally, governments play exceedingly divergent roles in influencing business activity in different countries, recent decades having witnessed marked changes in this respect. Whether as hang-overs of feudalistic, mercantilistic, and laissez faire policies, or as attempts to put into practice classical, communistic, or liberal doctrines, or as reflections of despotic, class, or democratic political controls, modern governments for good or ill have increasingly interfered with, supervised, and directed economic activity, albeit for most dissimilar ends. These factors have naturally had their influence, still largely unmeasured, in distorting the business-cycle pattern in different countries.¹⁵

SECTION 119. RECENT STATISTICAL STUDIES

In order to appreciate the importance of current statistical studies of business cycles, it is well to have in mind the character of the general time series of which they form a part.¹⁶ Business time series

¹⁵ *Ibid.* (1928), pp. 174-180; Louis H. Bean, *The Agricultural Situation* (Washington, D. C., Feb. 1, 1935), p. 7.

Historical data regarding business changes, especially as bearing on such readily noticed events as crises and panics, have long been recorded in newspapers, journals, and private diaries. They have now been systematically collected and are preserved for ready use in the form of business annals. Cf. publications of National Bureau of Economic Research, espec. Willard L. Thorp, *Business Annals* (New York, 1926).

¹⁶ Cf. Mitchell, *Business Cycles* (1928), chap. iii, and *Business Cycles* (1930), pp.

are of several more or less distinct types, most of which have achieved clear-cut statistical recognition: secular trends; secondary swings or long waves; business cycles; specific cycles; seasonal variations; and random fluctuations. These are here listed in an order of equal or decreasing time-span.

Secular trends carry over a relatively long or indefinite period of time and manifest rather uniform changes, such as those due to population growth or railroad expansion.

So-called secondary swings or long waves have only recently been "discovered" and require further testing. One of them has been estimated to have a time-swing of twenty-five years; another, of from forty to sixty years.

Business cycles average from three to six or seven years in length, as already pointed out; and specific cycles may be somewhat longer or shorter, as will be indicated presently.

Seasonal variations occur with the seasons of the year, as illustrated by Christmas holiday shopping or by summer bathing-suit sales.

Random or irregular fluctuations occur at any time, and if completely "random," may be thought of as offsetting one another. However, fluctuations due to such causes as strikes and floods are also here included, and these sometimes dominate business movements temporarily and may cause definite one-way variations. If such irregular factors could always be isolated or controlled, it would simplify the statistical problem considerably; but they are often obscure and not readily dissociated from other factors.

As appears to ordinary observation, all the business changes just indicated occur more or less together. They form a composite pattern, so that one of the most important statistical tasks as it relates to business cycles is to separate the known nonbusiness-cycle factors and to present a more selective picture of what remains. Secular and

92-107; Harold T. Davis, "Statistical Validity of the Forty-Month Cycle in Stock Prices," *Econometrica*, April, 1936, pp. 189-190; Simon S. Kuznets, *Cyclical Fluctuations, Retail and Wholesale Trade U. S. (1919-1925)* (New York, 1926), *Secular Movements in Production and Prices* (New York, 1930), and *Seasonal Variations in Industry and Trade* (New York, 1933); Carl Snyder, *Business Cycles and Business Measurements* (New York, 1927); Ernst F. Wagemann, *Economic Rhythm* (New York, 1930).

seasonal movements have already been fairly well isolated; but random fluctuations by their very nature are hard to deal with, the existence of secondary waves remains problematical, and the relation of specific cycles to business cycles is still in process of clarification.

The last-mentioned problem is of considerable current importance. All specific economic cycles more than one year and, say, less than twenty years in length are not, of course, intimately related to business cycles, whereas some of them unquestionably are. It is, for example, indicated that the prices of beef cattle in the United States follow a rhythm of some fifteen years and that the working life of machinery is about ten years. Such business variables have a periodicity more or less their own. On the other hand, wholesale prices, bank clearings, and pig-iron production show movements that are closely correlated with business-cycle movements. The latter undoubtedly represent composites of specific cycles that should be isolated so far as possible for the determination of special lags or leads. Certainly particular studies of those components of the composite business-cycle pattern represented in the broad subdivisions of business-cycle theory (that is, showing changes in profits, income and spending, production and consumption, and banking operations) should do much to advance our understanding of the problem as a whole.¹⁷

Statistical analysis thus presents evidence which in part supplements and reaffirms the historical record and in part lays the basis for a further testing of business-cycle theory. It shows, on the one hand, besides the factors just indicated and those enumerated in preceding sections, that the amplitude and timing of the four phases of business cycles can be approximately determined and that inherent fluctuations can for the most part be successfully separated from the secular, seasonal, and certain of the irregular changes in combination with which they occur. On the other hand, statistical analysis is now beginning to make available significant data that bear upon certain underlying economic factors closely related to business-cycle proc-

¹⁷ Cf. *Report of the Executive Director for 1937* (New York), pp. 31-33, for monographic business-cycle studies now being carried forward by the National Bureau of Economic Research.

esses, such as income distribution and disposition, volume of monetary payments, credit creation and cancellation, savings, capital formation, consumptive demand, economic wealth in prosperity and depression, national wealth-producing capacity, corporate wealth and control of income, employment and profits.¹⁸

¹⁸ Cf. Mitchell, *Business Cycles* (1928), pp. 47-49, 451-479.

CHAPTER XXIX

THE INCOME AND WEALTH OF THE AMERICAN PEOPLE

CONTEMPORARY STATISTICAL studies centering upon the variables just enumerated have brought us considerably nearer to a definitive understanding of the business-cycle pattern, and have thrown into much clearer relief the complexities of the modern business economy. Significant data drawn from recent investigations in the United States as bearing upon these variables will now be set forth.

In interpreting the figures presented, it should be borne in mind that they are based upon such sources as the official census and income-tax returns, which contain many gaps and which cannot be refined beyond a certain point. Such sources nevertheless provide significant authority for preliminary approximations, which, though they sometimes embrace highly conjectural elements due to insufficiencies in the primary returns, are by no means wild guesses or *a priori* excursions in the dark. They exhibit, rather, the best results that present collecting methods render possible. And, with the improvements constantly being made in the collecting machinery itself, still better estimates may be looked for as time goes on. It is in the light of considerations such as these that the round numbers employed in the following pages are to be understood; and, of course, before drawing more detailed inferences, the sources themselves should be consulted.¹

SECTION 120. AMERICAN MONEY INCOME AND ITS USE

In the United States today we live almost entirely under a money economy. According to the census, around 50 per cent of the population more than ten years of age are ordinarily engaged as gainful workers, 27 to 30 per cent take care of the home, and 17 to 20 per

¹ Cf. the following chapter, in which the methods used in the Brookings Inquiry into Income and Economic Progress are critically analyzed; also, Charles F. Roos, "Annual Survey of Statistical Information," *Econometrica*, Oct., 1935, pp. 366-375.

cent attend school.² Since the homemakers, the students, and the children, as well as the money recipients, rely almost altogether upon the money that the gainful workers receive,³ it is obvious to what a preponderant extent the American people are dependent upon money income for their economic welfare and general happiness.⁴

The "productive" money income of the nation in 1929, the peak year of our latest prosperity, was estimated to have been around eighty billions of dollars.⁵ The "total aggregate" income was said

² Including the children, the complete Continental population for 1920 and 1930 was, respectively, around 107 million and 123 million. Cf. *Statistical Abstract of the United States (1934)* (Washington, D. C., 1934), pp. 10, 53; *Abstract of the Fifteenth Census of the United States (1930)* (Washington, D. C., 1933), pp. 261-262, 402, 413; Mitchell, *Business Cycles* (1928), p. 83.

³ "Employed money recipients" might be a more accurate designation for the "gainful workers" of the census classification.

⁴ Among "gainful workers" not receiving money incomes are unpaid workers on farms. Cf. *Abstract of the Fifteenth Census*, p. 306. The homemakers are listed separately by the Census.

⁵ Cf. Maurice Leven, Harold G. Moulton, and Clark Warburton, *America's Capacity to Consume* (Washington, D. C., 1934), pp. 152-153, n. "b." Cf., also, *ibid.*, pp. 164, 195, 200; Willford I. King, *The National Income and Its Purchasing Power* (New York, 1930), pp. 9-10, 35, 42-43, 74-75, 378-380; Simon Kuznets, "National Income," *Encyclopedia of the Social Sciences*, XI, 205-224, and *National Income and Capital Formation* (1937). Cf., also, Kuznets, "National Income, 1929-1932," *National Bureau of Economic Research Bulletin*, No. 49, June 7, 1934, pp. 1-4, for other definitions of productive income and for difficulties encountered with respect to business savings. The productive income for 1929 there given, 83,032 billions, is the gross Department of Commerce aggregate, of which the 78,420 billions mentioned below, are the net total. Cf. *National Income, 1929-1932*, Senate Document No. 124, 73d Congress, 2d Session (Washington, D. C., 1934); also, Kuznets, *National Bureau of Economic Research Bulletin*, No. 66, Sept. 27, 1937.

Based upon supplementary calculations in *America's Capacity to Consume*, pp. 152-153, 160-164, the two sets of estimates are as follows:

PRODUCTIVE NATIONAL INCOME OF THE UNITED STATES FOR 1929
(In Millions of Dollars)

	W. I. King's and Brookings Series	Department of Commerce and National Bureau of Economic Research Estimates
Omitting business savings and in- come from foreign investments	79,702	78,420
Individual business savings (productive)	990
Income from foreign investments	565
<i>Totals</i>	79,702	79,975

to have been about ninety-five billions, the difference of fifteen billions representing unproductive activities, such as realized capital gains.⁶

These estimated *nominal* annual totals had increased considerably during the decade of the twenties, productive income having apparently grown from fifty-five billions in 1921. But the changes in *real per capita* income during the present century, despite the formidable nominal increases in years of prosperity, seem to reflect little if anything of our vaunted material progress. To be sure, during the peak year 1929 real per capita income appears to have been 38 per cent more than in 1900, but by 1933 it seems to have fallen 23 per cent below what it was at the beginning of the century. Such are part of the exigencies of an uncontrolled business-cycle economy. Whether on the whole we gain more in an upturn than we lose in a recession, it is extremely difficult to say.⁷

The functional distribution of aggregate national income likewise

⁶ Cf. *America's Capacity to Consume*, pp. 152-167; Clark Warburton, "The Trend of Savings, 1900-1929," *Journal of Political Economy*, Feb., 1935, p. 86; Mitchell, *Business Cycles* (1928), pp. 64, 92.

⁷ Cf. *America's Capacity to Consume*, pp. 15-18, 147-157; Mitchell, *Business Cycles* (1928), pp. 431, 442; Louis H. Bean, "The Agricultural Situation," *United States Bureau of Agricultural Economics* (Washington, D. C., Feb. 1, 1935), p. 5, in which an extension is attempted through 1934 of the figures given above for earlier years (Bean's estimates are probably too high); and Kuznets, "National Income, 1929-1932," p. 3, for estimates of income produced for 1929-32. Even the National Bureau of Research figures are too high, as compared with the figures given in the present chapter for preceding years, in that certain nonbusiness income is included. Cf., also, Robert F. Martin, "The National Income, 1933," *Survey of Current Business*, Washington, D. C., Jan., 1935, pp. 16-18; Robert R. Nathan, "National Income Increased Five Billion Dollars in 1934," *Survey of Current Business*, Aug., 1935, pp. 16-18; Nathan, "The National Income Produced, 1929-1934," *Survey of Current Business*, Nov., 1935, pp. 16-18.

Population increase 1929-33 was 4.2 millions or about 3.5 per cent (*Statistical Abstract, 1934*, p. 10). During the same interval the value of producers' goods decreased slightly, about 2 per cent. Cf. Frederick C. Mills, "Changes in Prices, Manufacturing Costs and Industrial Productivity," *National Bureau of Economic Research Bulletin*, No. 53, Dec. 22, 1934, p. 3, Table 2, and "Aspects of Recent Price Movements," *National Bureau of Economic Research Bulletin*, No. 48, Oct. 31, 1933, p. 3, Table 1.

Besides real per capita income, two other measures of economic progress are often mentioned, namely, technical advance and a reduction in working hours (cf. *America's Capacity to Consume*, p. 18), against which must be debited the greater strain and fatigue of those who operate, or work in conjunction with, high-speed modern machinery, and the loss of employment during slack seasons and business depressions.

appears to present a seamy side. (And be it noted that it is the aggregate income, and not the productive income only, that should be here used as a base.⁸) During the decade of the twenties—and the same situation probably maintained earlier—around 45 per cent of the aggregate income was distributed in the form of interest, dividends, rents, and profits, to a relatively small proportion of the population, to hardly more than 20 per cent of the people, as we shall have occasion to observe further presently, a part of whom also received salaries in more than full measure. The salaries accruing to the privileged “upper classes” were a part of the other 55 per cent of the aggregate national income, the remainder of which went as wages and salaries to the great majority of the people. The latter were for the most part dependent upon this form of income as their sole means of sustenance; they were apparently on the whole in a position neither to save nor to invest; and, in the succeeding depression of the thirties, they were the ones called upon to bear most of the income loss.⁹

So much for preliminary considerations regarding the income of the American people. More important for our purposes here is an analysis of the income of the American family, since the family remains the center of income disposition in this country, 91 per cent of our people in 1929 living in twenty-seven and one half million families of two or more persons. The following brief table, based upon a recent Brookings study, gives what seem to be the high spots of family income that year:

⁸ Cf. *America's Capacity to Consume*, pp. 153-158, Tables 5, 7, 8, 9, and 10. While the wrong totals are there used, in Tables 9 and 10, for the calculation of percentages, the proper point of view is expressed in a subsequent volume of the same Brookings series, namely, in Moulton's *The Formation of Capital*, p. 149. Cf. Warburton, “The Trend of Savings . . . ,” p. 86, Table 1, last column, for estimated totals of aggregate income that should have been employed.

⁹ Cf. Kuznets, “National Income, 1929-1932,” p. 7. Other phases of employment shrinkage in a depression will be discussed in a following section. For percentage estimates of functional distribution based upon Federal income-tax returns for 1918-24, see Mitchell's *Business Cycles*, p. 142, Table 5, and the Federal Trade Commission's Report on *National Wealth and Income* (Washington, D. C., 1926), pp. 227-229. The income-tax returns exclude a large part of agricultural income, in which the proportion of wages is low, and a large part of working-class income, in which the proportion of wages is high. For other side lights on the national “overhead” problem, see Walter Rautenstrauch, “Distribution of Income,” *The People's Money*, June, 1935, pp. 9-10, 23-27, 37, and his *Who Gets the Money* (New York, 1934).

AMERICAN FAMILY INCOME IN 1929

Number of Families (approximately)	Per Cent of Total Families	Amount of Income (in billions)	Per Cent of Total Family Income	Income per Family
36,000	0.1	\$ 9.8	13	More than \$75,000
5,500,000 (top fifth)	20.0	\$44.9	58	More than \$3,100
2,750,000 (top tenth)	10.0	\$34.6	45	More than \$4,600
2,750,000 (bottom tenth)	10.0	\$ 0.3	under 1	Less than \$600
5,500,000 (bottom fifth)	20.0	\$ 2.5	3	Less than \$950
12,000,000	42.0	\$10.1	13	Less than \$1,500
16,500,000	60.0	\$18.2	24	Less than \$2,000

From these figures it appears that, in the "happy days" of 1929, 0.1 per cent of the families at the top received about as much income as 42 per cent of the families at the bottom or on the average several hundred times as much a family; that the income of these two groups was, respectively, more than \$75,000 and less than \$1,500 a family; that the top tenth of the families secured almost half the total family income or more than one hundred times as much as the bottom tenth, which received less than 1 per cent of the whole; and that about sixteen and one half million families, or 60 per cent of the total, received less than \$2,000 each, which figure was authoritatively given at the time as a minimum requirement to cover basic necessities in the maintenance of a decent standard of family living in the United States.¹⁰

¹⁰ Cf. *Abstract of the Fifteenth Census, 1930*, pp. 401 ff., and *America's Capacity to*

The disposition of income naturally divides itself into consumptive expenditure and savings. Taking the same family groupings as indicated in the foregoing table, in 1929 the bottom twelve million families, which received about the same income as did the top thirty-six thousand, seem to have spent on the whole around three times as much for consumptive goods and services; for food the expenditure appears to have been nearly fifty times as much, but of course there were several hundred times as many families involved. Taking equal family groups, the top tenth, with an income more than one hundred times that of the bottom tenth, apparently laid out about ten times as much, and, in all, seems to have accounted for over one third of the family expenditures in this country for 1929. From these figures, the upper tenth of the families, answering for 35 per cent of the expenditures, consumed more than the poorest six tenths, which, though six times as large, accounted for less than 31 per cent of the total family outgo.

Family savings in 1929 appeared even more strikingly diverse. While the wealthy thirty-six thousand saved, on the average, \$155,000 a family, the poverty-ridden twelve million apparently spent more money than they received and thus had a deficit of something like \$170 each. In fact, according to these estimates the top tenth of the families, which secured 45 per cent of the income and consumed 35 per cent of the goods and services, accounted for 86 per cent of the

Consume, pp. 50-90, 95, 164, 222-265. Besides King's *Wealth and Income of the People of the United States* (1915), his *National Income and Its Purchasing Power* (1930), and the Federal Trade Commission's Report on *National Wealth and Income* (1926), see Frank H. Streightoff, *The Distribution of Incomes in the United States* (New York, 1912); Wesley C. Mitchell and Associates, *Income in the United States* (2 vols.; 1921 and 1922); and Harvey E. Fisk, "Some New Estimates of National Incomes," *American Economic Review*, 1930, pp. 20-27.

The four volumes of the Brookings Inquiry into Income and Economic Progress, namely, *America's Capacity to Produce*, *America's Capacity to Consume*, *The Formation of Capital*, and *Income and Economic Progress*, have recently been subjected to severe criticism. Cf. these criticisms and replies thereto, by Harold G. Moulton, *American Economic Review*, Dec., 1936; also, the following chapter, below.

For more recent income statistics, see Robert R. Nathan, "Income in the United States, 1929-37," *U. S. Department of Commerce*, Washington, D. C., Nov., 1938; National Resources Committee, *Consumer Incomes in the United States: Their Distribution in 1935-36* (Washington, D. C., 1938); and *Studies in Income and Wealth* (New York, 1937-38), Vols. I and II.

family savings; the upper fifth accounted for 98 per cent, while the remaining four fifths of the families were able to put aside for the proverbial rainy day only 2 per cent of the aggregate total saved. According to the same figures, the aggregate savings in this country for 1929, including business surpluses, amounted to around twenty billions of dollars, of which apparently fourteen billions were owned by one fiftieth and over seventeen billions by one tenth of the population.¹¹

There is still frequently encountered, in business-cycle literature, the idea of modern production on occasion so far outstripping consumption that human wants are periodically more than satisfied and periods of restricted production, as in a depression, are thus made necessary until the slack is taken up.¹² Later we shall see how erroneous this assumption is on the side of production. As for consumption, the figures presented in preceding paragraphs likewise serve to refute it. It is doubtless true that in 1929, as in the preceding years of the upturn, the wants of the wealthiest classes among the upper tenth of the people were fully satisfied. They probably had as much food and shelter and as many servants, yachts, and vacations as they could consume. In addition, they had an enormous fund of leftover income. Their huge pile of savings was therefore more or less automatic. But the situation was quite different with at least four fifths of the population. Here it is plain that even in the peak year of American prosperity there were millions of families in this country with many of their needs left unsatisfied—for food and shelter and clothing, not to mention other things. Among the great mass of our people, it was not the wants that were lacking but rather the money means for more adequately fulfilling those wants. The masses lacked only the necessary purchasing power.

Had some means been provided in 1929 for transferring a portion of the upper tenth's seventeen billions or of the upper fiftieth's fourteen billions, of more or less automatic savings, to the lower income classes for the enhancement of mass buying, certain interesting results could have been anticipated. A fifteen- to sixteen-billion-

¹¹ Cf. *America's Capacity to Consume*, pp. 93-99; Moulton, *The Formation of Capital*, p. 137.

¹² *America's Capacity to Consume*, pp. 115-117.

dollar transfer would have had the effect either of raising each of the three lowest family-income classes out of a total of six to the next higher level of expenditure or of raising all family budgets below \$2,500 up to that figure and thus setting \$2,500 as the minimum standard of American family living for that year. To have secured a "reasonable" standard for all was still beyond the possibility of any such transfer, since according to the United States Bureau of Home Economics an "adequate" diet and other "adequate" living at moderate cost necessitated in 1929 a family income of at least \$3,000. A "liberal diet" required an income of \$5,000. Nevertheless, a much higher standard of living than existed that year for the great majority of our people could have been achieved without any fundamental changes in the economic system. Had it been possible to attain a \$2,000 minimum family-income level, estimated as essential in 1929 to cover basic family necessities, only about eleven billion dollars of extra purchasing power would have been required, and yet the significant general effect upon three fifths of American families would have been to increase their total consumptive expenditures 55 per cent above what they actually were in 1929.¹⁸

There were, of course, other uses to which the seventeen billions of savings of the upper tenth of the people, or the fourteen billions of the uppermost fiftieth, could have been and were put in 1929, and any conjectural transfer of eleven to sixteen billions of them to the lower-income classes for the enhancement of consumer buying poses additional problems to be examined in the next chapter and later on. Whether the actual uses are or were more effective, we shall go into presently. Savings, it has long been maintained, are of first importance in the formation of new capital, without which a nation would soon cease to have adequate income for anyone. To what extent is this commonly held assumption true?

¹⁸ Cf. *ibid.*, pp. 117-124; Loeb and Associates, *The Chart of Plenty*, and their report of the *National Survey of Potential Product Capacity* (New York, 1935); likewise, Stuart Chase, "Our Capacity to Produce," Feb., 1935, pp. 343-352. Cf., also, Hazel K. Stiebeling and Medora M. Ward, "Diets at Four Levels of Nutritive Content and Cost," *U. S. Department of Agriculture Circular No. 296* (Washington, D. C., 1933); and Faith M. Williams and Carle C. Zimmerman, "Studies in Family Living in the United States and Other Countries," *United States Department of Agriculture, Misc. Pub. No. 223*, Washington, D. C., Dec., 1935.

SECTION 121. THE AMERICAN MONEY MECHANISM

Before this question can find satisfactory answer, we shall need to devote a few pages to certain aspects of the American money mechanism, through which savings find their way into the capital markets, through which money incomes are distributed to the people, and through which business transactions are in general consummated.

It is as part of a much larger flow of monetary payments among business concerns that the flow of income reaches the ultimate consumer, the ratio being "normally" around ten to one. That is to say, when the aggregate national income in a given year is ninety-five billions, the volume of all monetary payments may be something like nine hundred and fifty billions. More than half the consumer income in this country is, it would seem, normally spent in retail stores, most of the rest going to landlords, service agencies, professional men, personal servants, governmental offices, and savings institutions. And yet all these agencies taken together would appear ordinarily to account for only one tenth of the nation's monetary transactions, the remaining nine tenths being taken care of by wholesalers, jobbers, manufacturers, mine owners, transporters, and other intermediaries, with whom the consumer has few, if any direct, dealings but who, nevertheless, depend intimately for their success upon the volume of consumer spending. A falling-off or enhancement of consumer demand is multiplied a number of times as it reflects itself through the modern roundabout business system. It is thus not only the flow of consumer income which the monetary mechanism must accommodate but the much greater flow of monetary payments in general, adjusting itself promptly and effectively to the wide divergencies between the needs of prosperity and the needs of depression. A modern monetary mechanism must be both expansive and flexible.¹⁴

In the United States, this flexibility and expansiveness have been achieved through the development of deposit or credit currency, which today constitutes by far the more important subdivision of

¹⁴ Cf. Mitchell, *Business Cycles*, pp. 146-151, together with the Snyder, Nystrom-Mann, and Federal Trade Commission references mentioned therein; also, Moulton, *The Formation of Capital*, pp. 23-25.

our circulating medium.¹⁵ The other subdivision is coined and paper money, which now apparently takes care of only from 15 to 20 per cent of our monetary payments. Eighty to 85 per cent of them are ordinarily made through deposit or credit currency.¹⁶

Coined and paper money is not naturally responsive to the fluctuating business needs of a modern nation.¹⁷ Deposit or credit currency is thus responsive, since it expands in prosperity and contracts in depression. For domestic use the latter is of two main forms: bank notes, which are issued against eligible commodity or other acceptable paper and are retired at the maturity of the paper; and bank loans, in the form ordinarily of "deposits" subject to check, which are cancelled as the loans are paid. Thus as notes and loans are called for by expanding business, credit currency is manufactured by the banks to cover them—the more the notes and loans, the more the credit currency. And the reverse process operates in depression.¹⁸

There is of course a customary or legal relationship at any given time and place between the credit currency being manufactured by the banks and the coined and paper money in their possession. Banks should not go beyond the recognized or established ratio of credit currency or loan deposits, which they create, to the cash reserves or

¹⁵ For a general view of American money and banking practices, see: Frederick A. Bradford, *Banking* (New York, 1933); George W. Dowrie, *American Monetary and Banking Policies* (New York, 1930); Charles F. Dunbar, *Theory and History of Banking* (5th ed. rev.; New York, 1929); George W. Edwards, *Principles of Banking and Finance* (New York, 1932); Ralph G. Hawtrey, *Currency and Credit* (London, 1928); John T. Holdsworth, *Money and Banking* (5th ed. rev.; New York, 1928); Donald R. Kilborne, *Principles of Money and Banking* (New York, 1932); Ray V. Leffler, *Money and Credit* (New York, 1935); Moulton, *Principles of Money and Banking*; Louis A. Rufener, *Money and Banking in the United States* (Boston, 1934); William H. Steiner, *Money and Banking* (New York, 1933); H. Parker Willis, John M. Chapman, and Ralph W. Robey, *Contemporary Banking* (New York, 1933).

¹⁶ Cf. Nourse and Associates, *America's Capacity to Produce*, pp. 596-597, Table 37; and Mitchell, *Business Cycles*, pp. 116-118, 122-139. The latter pages also contain an able critical analysis of the quantity theory of money. Cf., also, James W. Angell, *The Behavior of Money* (New York, 1936).

¹⁷ Cf. Mitchell, *Business Cycles*, pp. 119-122.

¹⁸ For modern theories of bank credit and its uses, see Hawtrey, *Currency and Credit*, chap. xiii; Harold G. Moulton, "Commercial Banking and Capital Formation," *Journal of Political Economy*, 1918, pp. 484-508, 638-663, 705-731, 849-881, and *The Financial Organization of Society* (3d ed.; Chicago, 1930); Chester A. Phillips, *Bank Credit* (New York, 1920); Robert G. Rodkey, *The Banking Process* (New York, 1928).

actual deposits, which they have available. Such reserves are necessary to meet the day-to-day cash demands of depositors.¹⁹ When banks in this country were few and scattered, a situation maintaining generally up to the Civil War, this ratio (for national banks) was about four to one; that is, not much credit currency could safely be created against the cash on hand. As banks became more numerous and better integrated, the ratio rose, until in 1914, when the Federal Reserve Act went into effect, it stood around nine to one. Since then it has gone as high as twelve and thirteen to one. At each stage of better integration, greater adaptability and expansiveness of credit currency have been achieved to meet the increasing and fluctuating monetary needs of the nation, until in 1929, despite the unprecedented business activity of the period, our monetary system was in no danger of being disrupted. This had not always been true in earlier periods.²⁰

We are not here concerned to give a full account of the character of our monetary structure. We have omitted such shortcomings as the tendency to make questionable bank loans to businessmen in boom periods, the inevitable result being the type of disruption which in the depression of the thirties led to the "bank holiday" of 1933.²¹ The foregoing account, furthermore, is oversimplified, though hardly more so than the type of treatment usually found in traditional economic literature.

The traditional account is particularly oversimplified in giving credence to the notion that the "commercial" banking facilities of this country are limited to commercial activities, for the most part

¹⁹ Cf. Waldo F. Mitchell, *The Uses of Bank Funds* (Chicago, 1925).

²⁰ Cf. Moulton, *The Formation of Capital*, pp. 194-195, Table 2; and Allyn A. Young, *An Analysis of Bank Statistics for the United States* (Cambridge, 1928). For the history of banking in this country, see: Davis R. Dewey, *Financial History of the United States* (12th ed.; New York, 1934); Charles F. Dunbar, *Theory and History of Banking* (5th ed.; New York, 1929); H. Parker Willis, *American Banking* (rev. ed.; Chicago, 1923), and *The Federal Reserve System* (New York, 1923).

²¹ Cf. The Federal "Banking Act of 1933," sec. 12B, *Publication No. 66, 73d Congress, 1st Session*, Washington, D. C., approved, June 16, 1933, and the Federal "Banking Act of 1935," Title I, Federal Deposit Insurance, *Publication No. 305, 74th Congress*, Washington, D. C., approved, Aug. 23, 1935; also, "Guaranty of Bank Deposits," *Federal Reserve Bulletin* (Washington), XI (1925), 626-668; James G. Hodgson, *Federal Regulation of Banking with Guaranty of Deposits* (New York, 1932); Commission on Banking Law and Practice, *The Guaranty of Bank Deposits* (Chicago, 1933).

(if not entirely) to cover short-term, seasonal, distribution operations. Such was undoubtedly the situation in England long ago, where the commercial banking system, as we know it, took its rise. But it never functioned in this primitive fashion in the United States. Today the "commercial" banks of the country not only extend credit for all short-term business finance, whether commercial, industrial, or agricultural, supplying working funds where they are urgently required and should be quickly liquidated, but these banks also extend credit for long-term capital needs and for investment purposes as well.²²

Not only is that true, but in addition "commercial" banks create credit currency for city, state, and federal governments, for stock exchange speculations, and for private ends quite apart from the exigencies of business. In short, the ubiquitous "commercial" banking system of this country is today a national system, to which the destinies of the entire people are linked in many ways, which for multifarious purposes manufactures credit currency—by far the most important form of money in the United States—and which is nevertheless operated by private bankers for private profit.

Why a national system should continue to be thus operated without more complete credit control in the public interest, it is hard to see, but that is another story so far as the primary objective before us in this chapter is concerned.²³ We thus return to the question of the relation of savings to capital formation and the various uses—productive and otherwise—to which savings may be and are put.

SECTION 122. GOOD AND BAD USE OF SAVINGS

Savings, as has been indicated, are the difference between income and consumptive expenditure, and are usually thought of (though not always) as including corporate surpluses and taxes that go to governments. This broad definition is enough for our purpose here. Further aspects are touched upon later in Sections 128 and 137.

²² Cf. Charles O. Hardy and Jacob Viner, *Report on the Availability of Bank Credit in the Seventh Federal Reserve District* (Washington, D. C., 1935); Moulton, "Commercial Banking and Capital Formation," pp. 643-658.

²³ Cf. John M. Keynes, "Credit Control," *Encyclopedia of the Social Sciences*, IV 550-553; Keynes, *A Treatise on Money* (2 vols.; New York, 1930); Hawtrey, *op. cit.*, chap. ix; Harold L. Reed, "The Stabilization Doctrines of Carl Snyder," *Quarterly Journal of Economics*, Aug., 1935, pp. 600-620.

After passing through the monetary mechanism by way of banks and governmental treasuries, savings serve, among other things, to finance new economic activities such as new capital formation.²⁴

Capital, as here used, is not in any sense a part of the circulating medium; nor does it comprehend all durable goods or just new construction, but, rather, those man-made structures and implements, whether old or new, which are used in further productive operations. In short, capital is here capital goods, which differ from consumers' goods in that the latter satisfy human wants directly, whereas the former do not.²⁵

Under individualistic enterprise at its simplest, capital goods are produced directly by the enterpriser. Under the modern money and credit economy, capital goods like consumers' goods are made available through the intermediary money and credit mechanism.

Classical theory linked savings with capital formation in an erroneous and misleading fashion, overlooking the important intermediary credit mechanism, the diversified long-term as well as short-term uses to which the mechanism can be put, and the actual employment of men and materials under modern conditions. The assumption was that all savings went directly and automatically into new capital formation and that the process necessitated a corresponding reduction in consumption goods or consumer demand. What was the gain of the one constituted the loss of the other.²⁶ Not only is

²⁴ Cf. Edwin Cannon, *Wealth* (3d ed.; London, 1928), chap. vii; Evan F. M. Durbin *Purchasing Power and Trade Depression* (London, 1933); Irving Fisher, *The Nature of Capital and Income* (New York, 1927); Frederick A. von Hayek, "The 'Paradox' of Saving," *Economica*, May, 1931, pp. 125-169; Arthur E. Monroe, "Investment and Saving," *Quarterly Journal of Economics*, 1928-29, pp. 567-603; Harold G. Moulton, *Commercial Banking and Capital Formation*, and critique by M. H. Watkins, *Journal of Political Economy*, 1918, pp. 484-508, 638-663, 705-731, 849-881, and, 1919, pp. 578-605; Dennis H. Robertson, "Saving and Hoarding," *Economic Journal*, 1933, pp. 399-413; George P. Watkins, "Economics of Saving," *American Economic Review*, 1933, pp. 61-81.

²⁵ For a more general discussion of capital, see: Edwin Cannon, *A History of the Theories of Production and Distribution* (3d ed.; London, 1924); Frank A. Fetter, "Recent Discussion of the Capital Concept," *Quarterly Journal of Economics*, 1900-1901, pp. 1-45; Irving Fisher, *The Nature of Capital and Income*; Thorstein B. Veblen, "On the Nature of Capital," reprinted in *The Place of Science in Modern Civilization* (New York, 1919), pp. 324-386. Cf., also, discussion of the capital concept in chap. xxxii, below.

²⁶ Cf. Benjamin M. Anderson, Jr., "Bank Money and the Capital Supply," *Bulletin*,

this assumption out of line with contemporary reality, but it omits the essential fact at the very basis of capital formation, namely, that the latter depends upon increasing, not diminishing, consumer demand.

Capital is important, since it is a part of productive national wealth; and, in the past, savings have also been regarded as important nationally, because allegedly linked directly with capital formation. But it is consumptive demand, and not savings, which constitutes this direct link.²⁷ Recent research in the United States, by members of the staff of the National Bureau of Economic Research, the Brookings Institution, and other organizations, tends to demonstrate that consumption and capital formation increase and decrease together.²⁸ It also tends to demonstrate that depressions often begin with a drop in consumer buying. Capital formation is thus somewhat closely linked with consumer demand.²⁹

The concurrent or nearly concurrent increase, in a revival, of consumer purchasing and capital formation is made possible through our expansive credit mechanism, which extends loan facilities, in the manner described, for the creation of both consumers' and capital goods as the upturn takes form. Part of these credit extensions pass through business concerns into the hands of income recipients and

Chase National Bank, New York, Nov. 8, 1926, p. 21; Paul H. Douglass, "Purchasing Power of the Masses and Business Depressions," in *Economic Essays in Honor of Wesley Clair Mitchell* (New York, 1935), p. 110; Frederick A. von Hayek, "The 'Paradox' of Saving," p. 140; John A. Hobson, *The Industrial System* (London, 1910), p. 50. For a fuller account of such confusions and of related questions of more constructive import, see Mitchell, *Business Cycles*, pp. 23-47; and Moulton, *The Formation of Capital*, pp. 163-184.

²⁷ The virtue of savings and thrift has had considerable emphasis in the United States from the time of Benjamin Franklin on. Many writers on economics have regarded the possibility of oversavings, and thus of any danger arising therefrom, as preposterous. With the nineteenth century, however, students here and there have taken the opposite view, beginning with Lord Lauderdale, Sismondi, and Malthus, and continuing with Hobson, Moulton, Foster and Catchings, and others, down to the present day.

²⁸ Cf. Frederick C. Mills, *Economic Tendencies in the United States* (New York, 1932), p. 21; Simon Kuznets, "Gross Capital Formation, 1919-1933," *National Bureau of Economic Research Bulletin*, No. 52, Nov. 15, 1934, p. 6, Table 5; Moulton, *The Formation of Capital*, pp. 46, 193.

²⁹ Cf. Willard L. Thorp and Wesley C. Mitchell, *Business Annals* (New York, 1926), pp. 107-145; Moulton, *The Formation of Capital*, pp. 57-70.

through them, in still lesser amount, into savings and investment institutions. Savings also expand at such times, since the income of the upper classes is then being considerably augmented by interest, profit, and dividend accumulations. But such increased savings are beside the issue here. Our present monetary mechanism now has ample facilities for financing an expansion of consumers' and capital goods quite apart from augmented individual savings. In fact, there ordinarily exist today none of the traditionally conceived limits to such expansion in terms of productive capacity, labor supply, and credit resources, though there have been some exceptions in the past. At the height of the boom of the twenties there was no shortage or near-shortage in any of these.³⁰

So much for the dependence of *private* capital formation upon consumer demand and credit extensions. *Public* capital formation follows in part the same general pattern with respect to the credit structure, but its dependence is primarily upon public need, and its operation is best seen in a depression. Under our early *laissez faire* policy, there was little public capital created in the United States outside of military establishments. More recently, American cities and states have increasingly participated in capital enterprises, such as canal building and public highways, and during the depression of the early thirties the Federal Government expanded its participation in unprecedented fashion, more than doubling its civilian capital outlays between 1930 and 1935. That credit extensions by our banking system now apply just as effectively in public as in private capital formation is evidenced by the fact that of the 10.6-billion-dollar increase in our national debt during these depression years, the banks of the Federal Reserve System absorbed 6.6 billions. Whatever future difficulties may arise in meeting these obligations through increased tax levies or otherwise, the fact remains that today both public and private capital formation is furthered through the credit facilities of our national banking system.³¹

³⁰ Cf. Moulton, *The Formation of Capital*, pp. 108-114.

³¹ Cf. United States Bureau of the Census, *Financial Statistics of Cities* and annual volumes of *Financial Statistics of States* (Washington, D. C., 1915-30); Carroll H. Woody, *The Growth of the Federal Government, 1915-1932* (New York, 1934), pp. 500-504; and "America Spends \$3,500,000,000 Yearly on Public Works," *National*

The general situation in these matters should now be fairly clear. Public capital depends upon public need; private capital, upon effective consumer demand, although capital construction may at times anticipate consumer demand, as in the building of the railroads. Extra men and materials and credit resources are today almost always available whenever and wherever new capital is demanded. Individual savings, on the other hand, might for a time disappear and capital creation still go on through credit extensions based upon accumulated corporate surpluses or public funds or merely upon the private and public wealth of the nation, the equities already in existence. Savings under modern conditions, however, do not either stand still or go backward. They may, in fact, at times pile up in such sterile superabundance in the hands of a few people that, as they stand, no productive employment can be found for them, either through new capital formation or otherwise. Such, as we shall now have occasion to observe, was apparently part of the story of the upturn of the twenties.

In the latter half of that decade, aggregate savings in this country appear to have totaled annually from 17 to 20 billions in dollar value, of which probably from 13 to 16 billions were available yearly for investment purposes.³² At the same time, according to Brookings, Moody, and *Commercial and Financial Chronicle* figures, net productive financing or new capital formation through regular investment channels (that is, through the security markets) remained virtually stationary at about 5 billions annually, while net unproductive corporate financing apparently rose from less than a billion in 1922 and 1923 to 6 billions in 1929 and unproductive individual capital gains from 1.3 billions to 6.2 billions.³³ Out of about 16 billions available

Bureau of Economic Research News-Bulletin, No. 39, July 3, 1930. For further details regarding the material developed here, see Moulton, *The Formation of Capital*, pp. 102-135.

³² Cf. Clark Warburton, "The Trend of Savings, 1900-1929," p. 92, Table 6 (where a range is indicated by Warburton, the simple mean has been taken for our purposes here); Cleona Lewis, "The Trend of Savings, 1900-1929," *Journal of Political Economy*, Aug., 1935, pp. 530-547; and Moulton, *The Formation of Capital*, pp. 141-142. (The Brookings figures include funds released for investment purposes, in paying off the public debt of the United States, averaging 876 millions annually during the period.)

³³ Cf. *Commercial and Financial Chronicle* (New York), CXXX, Part I, p. 366. To the *Chronicle* figures, which include foreign and territorial issues, there have been

for investment purposes in the peak year 1929, something less than 5 billions seem to have gone into new capital formation and between 10 and 11 billions were apparently drained off into unproductive channels. (Another 5 billions went into new capital formation through other than regular investment channels.)

Where did this unproductive flow of savings end up? Quite apparently, for the most part, in fictitiously enhanced prices of existing stocks and bonds, which increased enormously each year during the latter half of the decade, the advance in 1929 reaching the colossal sum of over 40 billions of increase in the span of eight months, compared with the relatively meager 10 billions of new capital added through investment and other channels during the year. This inflation in security prices, brought about by the pressure of redundant savings, was twice the aggregate total of all savings, private and business, during 1929.³⁴

Not that anyone thus secures something out of nothing, as the subsequent stock-market crash and loss of stock prices demonstrated, although, unfortunately, some of the middle income groups, who had very little savings for any purpose, had been drawn into the vortex as the slump was seen approaching by the insiders, while the latter pocketed their gains, got out of the market, or sold short. The result was a further transfer of savings and property (including the "shirts"!) from "weak" to "strong" hands, where they undoubtedly for the most part still remain.

The annual redundancy of savings during the latter half of the twenties tells but a part of the story of unproductive use by a small percentage of the people, who had nothing else they could do with

added two billion dollars for each year to cover net flotations of farm and urban mortgages, not otherwise accounted for. The two-billion-dollar figure is an average of the yearly estimates made by George W. Terborgh of the Brookings Institution in an unpublished study. Cf., also, "Moody's Investors Service" (New York), quoted in *The Formation of Capital*, p. 145 (the Moody figures excluding foreign and territorial securities); and Warburton, "The Trend of Savings, 1900-1929," p. 86, Table 1.

³⁴The total dollar value of stocks and bonds (excepting United States and foreign government bonds) listed on the New York Stock Exchange, Jan. 1, 1925, was 40.8 billions; by Sept. 1, 1929, this total had risen to 105.7 billions. Most of this increase was of course merely a "paper" increase and was never actually realized. For monthly total prices of listed stocks and bonds, cf. New York Stock Exchange, *Year Book, 1929-1930* (New York, 1930), pp. 114-143; Moulton, *The Formation of Capital*, p. 148.

the leftovers of their disproportionate incomes. During that period, upward of 40 unproductive billions of actual savings were employed by the monetary mechanism for pumping something like 100 billions of fictitious prices into the stock markets. From the beginning of 1925 to September, 1929, the prices of stocks listed on the New York Stock Exchange (possibly half the national total) rose from 27 billions to 90 billions, the Industrial Dow Jones Average moving from 120 to 380. By June, 1935, that average had dropped below 50 and was up again to 120, which would seem to suggest that in the interim most of the inflation had been squeezed out. But what has become of the 40 unproductive billions of actual though redundant savings? Have they been lost? A substantial part of them undoubtedly still remains in the control of that same small group of "strong hands," which have long since placed a goodly portion, we may assume, among the 45 to 50 billions of totally or partially tax-exempt government bonds said to be at present outstanding, although the tremendous decrease in the prices of existing properties must also be taken into account in this connection.³⁵

To sum up the matter thus far: It would appear that, from the standpoint of real income, much of our vaunted economic progress is illusory. The real per capita income has not on the whole increased in the first third of the twentieth century. The distribution of income is exceedingly unequal. A state of chronic "underconsumption" or poverty exists among the masses, who are forced to submit to low living standards and who save almost nothing. The wealthy

³⁵ Figures to cover this estimate are not all of a piece or equally up-to-date. The sources used are as follows: For state and municipal bonds outstanding as of Dec. 31, 1934, *The Bond Buyer*, New York, Jan. 5, 1935, pp. 5-6, 19.2 billions (for more complete estimates here, after Jan. 1, 1935, see *Annual Report of the Secretary of the Treasury . . . for the fiscal year ending June 30, 1935*, Washington, D. C., 1936, the 1934 Report, p. 392, Table 44, giving totals through 1933 only); for regular Federal bonds outstanding as of Oct. 31, 1935, *Daily Statement of the United States Treasury*, Washington, D. C., Oct. 31, 1935, total interest-bearing debt outstanding (28.4 billions) minus securities held for sinking funds (0.7 billions), 27.7 billions; for other Federal bonds outstanding as of Sept. 30, 1935, "Statement of Condition of Joint Stock Land Banks . . . as of June 30, 1935." *Farm Credit Administration*, Washington, D. C., p. 27, and "Statements of Condition of Federal Land Banks, Federal Farm Mortgage Corporation, Federal Intermediate Credit Banks . . . Sept. 30, 1935," *Farm Credit Administration*, pp. 8, 14, 19 (0.2, plus 1.9, minus 0.8, plus 1.4, plus 0.2 billions), 2.9 billions: or an estimated total of 49.8 billions of dollars.

few pile up the bulk of the savings, which in their hands have become increasingly redundant and sterile and which for the most part cannot through them find productive use.

During the upturn of the twenties, the cumulative superabundance of savings apparently proved an actual detriment rather than a benefit to American business. As it was, it made possible an unprecedented increase in unproductive capital gains, swollen security prices, and disrupting speculative activity. With the help of credit-currency inflation, it served to precipitate the worst stock-market crash in our history. At the same time, had it been possible instead to use this huge fund of savings to increase the purchasing power of the masses, not only might living standards have been appreciably raised, along lines previously suggested, but the stock-market fiasco might have been avoided and the heart-rending depression of the thirties might, we venture to believe, have been prevented.

Whether the American capacity for wealth production might have accommodated the additional eleven-billion-dollar consumer demand which such an alternative use of redundant savings could conceivably have brought with it in 1929, we shall have occasion to examine into presently.

SECTION 123. AMERICAN ECONOMIC WEALTH

We live in a money economy, and for our welfare and happiness we depend predominantly upon money income, but we continue to be admonished by a certain group of economists to look beneath "the money surface of things" for the real wealth of the nation. To make a study of real wealth is, to be sure, of no small consequence, and yet even here it is important to keep in mind that its money aspects always occupy a significant place in the forefront of our view. It has, in fact, too often happened that in endeavoring to look beneath the "surface" economists have failed to give proper attention to most obvious and important factors. In examining the baby, to reverse a common euphemism, they keep overlooking if not discarding the bath. Money income, expenditure, and savings are problems to which too much earnest thought can hardly be given at the present time, even though they may not be completely under-

stood without the material wealth and the human satisfactions that lie beneath them.

Wealth is highly important for the welfare of the nation in that, through it, real income is today in large part made possible. In general, wealth is the sum total of resources and conditions upon which human satisfactions depend. In particular and as viewed economically, it is limited to those resources that affect consumptive satisfactions only.

Even thus narrowly viewed, current inventories of economic wealth are still further limited to material assets, since the perishables and the intangibles are too elusive for successful stocktaking and since at best such stocktaking is still in an exploratory stage. Economic wealth has therefore come to comprehend only such tangibles as goods in process, finished goods not yet distributed, producers' or capital goods in use, and consumers' goods in use. These more or less durable wealth assets will be further examined directly.³⁶

Wealth, property, and income have all been used as standards for measuring the economic condition of a nation's people. Wealth, a social and economic concept, and property, a legal concept, are often needlessly confused. The one comprehends the assets them-

³⁶ Cf. Federal Trade Commission, *National Wealth and Income* (Washington, D. C., 1926), pp. 17-27, 40-43. The Federal Trade Commission assigned a dollar worth to public roads and streets, whereas the census (upon whose figures the Commission's estimates are based) did not. The census included an item for privately owned waterworks in 1922 but none for publicly owned waterworks, which illustrates the need for further careful study of the items to be included in wealth inventories as well as of the evaluation procedures used. Cf., also, Charles B. Spahr, *An Essay on the Present Distribution of Wealth in the United States* (New York, 1896); John Bates Clark, *Distribution of Wealth* (New York, 1902); Willford I. King, *The Wealth and Income of the People of the United States* (New York, 1915); Walter R. Ingalls, *Wealth and Income of the American People* (2d ed.; York, Pa., 1923); Bureau of the Census, *Estimated National Wealth* (Washington, D. C., 1924), espec. the Foreword, by Willford I. King, on the difficulties of wealth measurement; Josiah C. Stamp, *Wealth and Taxable Capacity* (London, 1922), and "The National Capital," *Journal of the Royal Statistical Society*, XCIV (1931), 1-30; Wilhelm Winkler, "Volksvermögen," *Handwörterbuch der Staatswissenschaften* (4th ed.; Jena, 1928), pp. 770-786; John A. Hobson, *Wealth and Life* (London, 1929); National Industrial Conference Board, *The Conference Board Bulletin*, New York, No. 38, Feb. 25, 1930, p. 303; Moritz R. Weyermann, "National Wealth," *Encyclopedia of the Social Sciences*, XI, 227-231; Adolf A. Berle, Jr., and Victoria J. Pederson, *Liquid Claims and National Wealth* (New York, 1934).

selves; the other, the ownership claims to those assets.³⁷ Property rights are highly complicated and duplicative unless the wealth assets to which they refer are clearly enumerated. Hence the prime importance of wealth inventories. Another phase of this importance is seen in the relation of wealth to income, which we have thus far viewed chiefly on its money side. On its real or human side, income consists of those very consumptive satisfactions which it is the function of economic wealth, with the assistance of labor, to produce. Money income is an ownership claim to such satisfactions.

In primitive times, wealth and income were almost synonymous, and they were more or less consumed as produced, labor constituting virtually the sole productive agency. As civilization advanced, durable consumption goods, such as dwellings and clothing and ornaments, were accumulated, and productive capital was more elaborately developed to add increasingly to further income by rendering labor more effective. Where among early peoples there was much more annual income than economic wealth, there is today, under roundabout systems of capitalistic production, considerably more economic wealth than there is annual income.³⁸ The productiveness of the modern economic machine depends, however, as much upon the quality of the capital wealth and the manner of its utilization as upon the mere quantity of it. And economic wealth, be it remembered, is composed of durable consumers' goods and goods in process, as well as of capital equipment.³⁹

To make a proper inventory of a nation's wealth is a highly complicated problem. No satisfactory picture of the wealth of the United States is as yet available, because of the difficulty of preparing reliable estimates at any time and of the added complication of comparing the inventories of one period with those of another period. No really substantial figures were in existence for this country until

³⁷ Cf. Bureau of the Census, *op. cit.*; and Federal Trade Commission, *op. cit.*, pp. 20-21; also, Richard T. Ely, *Property and Contract* (2 vols.; New York, 1914); Thorstein Veblen, *Absentee Ownership and Business Enterprise in Recent Times* (New York, 1923); Commons, *The Legal Foundations of Capitalism*; Adolph A. Berle, Jr., and Gardiner C. Means, *The Modern Corporation and Private Property*, New York, 1932).

³⁸ Cf. Mitchell, *Business Cycles*, p. 99 n.

³⁹ In 1929 the capital-equipment portion of American economic wealth was estimated as having a value of 204 billions out of a total of 450 billions (Moulton, *The Formation of Capital*, pp. 185-189).

the decennial census of 1922, although a good beginning was made ten years earlier (and the official censuses go back as far as 1850). Nor is there anything completely reliable since 1922, in that the wealth schedules for the 1932 census had to be omitted. Nevertheless, we have a fairly satisfactory compilation for 1929, so that for the decade of the twenties preliminary sets of estimates may be hazarded, with the understanding that the figures are not equally reliable or entirely comparable. The one set is drawn from compilations by the Bureau of the Census and the Federal Trade Commission; the other set, from calculations by W. I. Ingalls.⁴⁰ The two sets are briefly summarized below:

**ESTIMATES OF THE MATERIAL ECONOMIC WEALTH
OF THE UNITED STATES⁴¹**
(Current Dollars in Billions)

	1922	1929
Land (taxed and exempt).....	122	176
Improvements on land.....	108	124
Products and merchandise.....	36	45

⁴⁰ Cf. Bureau of the Census, *op. cit.* (1924); Federal Trade Commission, *op. cit.* (1926). Cf., also, Walter R. Ingalls, "The Wealth of the American People in 1929—Values in Current Dollars," *The Annalist*, New York, Oct. 23, 1931, pp. 667 ff. This compilation also contains estimates by the National Industrial Conference Board for 1928 and by the United States Chamber of Commerce for 1930. Cf., also, Berle and Pederson, *op. cit.*, who in Tables 1 (p. 73), 6 (p. 104), and 8 (p. 109), make use of much less reliable and largely incomparable figures for earlier and later years. (Their reference to the Federal Trade Commission wealth figures for 1922 is evidently in error; the figure they give for that year is the total arrived at by the Bureau of the Census.)

⁴¹ The 1922 estimates are based primarily upon official census figures for Continental United States (Bureau of the Census, *op. cit.*, 1924), but they include certain extensions by the Federal Trade Commission (cf. its report on *National Wealth and Income*, pp. 28 and 34), and they are given in the table as rearranged by Mitchell in his *Business Cycles*, pp. 90-99; cf., also, Ingalls, *Wealth and Income of the American People*, for earlier wealth estimates (for 1920).

The 1929 estimates also make use, so far as possible, of census figures; but, since these were incomplete for 1929, Ingall's extensions, utilizing estimates by the National Industrial Conference Board for 1928 and by the United States Chamber of Commerce for 1930, have been selected as a base; cf. Ingalls, *The Wealth of the American People in 1929—Values in Current Dollars*, pp. 667 ff. The present writer has broken down and rearranged Ingall's estimates to conform with the 1922 classifications of

Movable productive equipment.....	44	53
Consumers' chattels and personal effects....	42	51
	<hr/>	<hr/>
Total man-made wealth.....	231	274
	<hr/>	<hr/>
Grand total, including land.....	353	450
	<hr/>	<hr/>
Productive Income ⁴²	58	80

The first two subdivisions of the table taken together, land and improvements on land, indicate the importance of real estate in national economic wealth, comprehending as they do about two thirds of the total value.⁴³ The seventy-billion-dollar increase in real estate prices suggested for this seven-year period was of course largely, if not wholly, fictitious and was more than wiped out soon after 1929. Most of this apparent increase, it will be noted, was in the price of land.

The three remaining wealth categories comprehend the movables. Products and merchandise are goods in process destined for the producer and the consumer. Below this item, are the movable producers' goods in use and the movable consumers' goods in use. The nominal increase in dollar value of these three categories was, it would seem, surprisingly uniform, from 21 to 25 per cent, but it should be noted that this increase was less than the nominal rise in annual productive income, which was 38 per cent.

Mitchell and the Federal Trade Commission, to wit: adding 3 billions for pleasure automobiles to consumers' chattels; distributing the miscellaneous items; separating the public utility total of 57.6 billions into land (7.6), improvements (32.1), and movables (17.9), in accordance with Federal Trade Commission breakdown (see *op. cit.*, Table 2, p. 30, for basis); raising the real-estate total to 300 billions by adding public-utility real estate (39.7) and miscellaneous real estate (20) and then dividing the total into land (176) and improvements (124) in accordance with Federal Trade Commission breakdown for those items not otherwise separated (see *op. cit.*, p. 34, Table 3); and adding gold and silver (5.2), public utility movables (17.9), and motor cars and trucks (3) to movable productive equipment.

Foreign investments, which are ownership claims not representative of the internal economic wealth of the United States, are excluded from the totals. They amounted, net, in 1929 to about 10 billion dollars.

⁴² For productive income for 1922 and 1929, cf. Leven *et al.*, *op. cit.*, pp. 152-153, col. 5.

⁴³ Cf. Berle and Pederson, *op. cit.*, pp. 108-109. If we credit the earlier, less reliable census data used in this reference, real-estate values appear over a long period to have ranged from 50 to 60 per cent of the national wealth.

Further comparisons will not be attempted here for the reason already given. Other possible ratios come readily to mind, but until we possess more comparable data, detailed inferences are meaningless, as are attempted corrections for price and population changes. One additional comment, however, may be made. The nation was probably better off in real or actual per capita wealth in 1929 than it was in 1922, despite the inflation in equity prices already commented upon; but, if in 1933 real per capita income had fallen 23 per cent below its 1900 level, as indicated in a preceding section, real per capita wealth had doubtless by that time also receded markedly from its 1929 peak and possibly even from its 1922 position.

After all, both of the wealth estimates here presented pertain to a period of good times. We have no detailed statistics covering depression losses; but we know without question that during bad times land values drop considerably, that improvements on land are held back while depreciation takes its toll of the property that remains, that the flow of products and merchandise is retarded and part of the stream is virtually dried up, and that productive equipment and consumers' chattels wear out or become obsolescent or outmoded, while advancing technology speeds the need for replacements. If, as estimated, over two hundred billions of wealth in 1929 were in productive capital equipment and only about ten billions of new capital were being added during 1929, the last year of the boom of the twenties, it appears that (under the most favorable conditions) twenty years would be required to replace our 1929 capital wealth were it completely destroyed. How much of it was destroyed in the early thirties no one knows, but the proportion has undoubtedly been large and the setback to national wealth-accumulation in terms of years has unquestionably been great.⁴⁴

⁴⁴ Cf. Moulton, *The Formation of Capital*, pp. 145, 185-189; and Alanson D. Morehouse, "The Real Property Inventory of 1934," *Survey of Current Business*, Nov., 1934, pp. 16-19.

Although exact figures are lacking pertaining to depression losses in productive wealth during the early thirties, various estimates have recently been made which are worth noting. The American Iron and Steel Institute indicates that American industry used about 67 million tons of steel less from 1930 through 1934 than it did in the preceding five years. The Machinery and Allied Products Institute, the *Electrical World*, and the *American Machinist* estimate that 50 per cent of the 1929 manufacturing plants had become obsolete by the end of 1934 and that there now exists a

So much for the ups and downs of American wealth as a whole and for our inability as yet to delineate them adequately. An even more important question for public welfare is how wealth has been and is distributed among the people. Here the researches of the Federal Trade Commission and the National Bureau of Economic Research provide interesting results, based upon probate court records and upon statistics of income.⁴⁵

The important findings of these agencies are that from 1912 to 1924 about 1 per cent of the people of the United States owned over half the tangible wealth and that 10 per cent of the people owned around 90 per cent of the wealth.⁴⁶ This high degree of wealth concentration has doubtless not changed since 1924 unless it is in the direction of still greater concentration.⁴⁷ The findings are wholly

machinery-replacement and electrical-products need running into more than 30 billions of dollars. The *Railway Age* tells a similar story of obsolescent railroad equipment. The Committee for Economic Recovery sees a deferred backlog of automobiles of some 6.5 million cars annually for over a three-year period and an expenditure to cover replacements, obsolescence, and deterioration in American homes amounting to something like 20 billions of dollars over a ten-year period. For earlier depressions see: "Depression of 1921 Cost Six Billion Dollars," *National Bureau of Economic Research, News-Bulletin*, No. 5, May 1, 1923. Cf., also, Ralph C. Epstein, "Industrial Profits in Prosperity and Depression, 1919-1932"; Leo Wolman, "Wages During the Depression"; Solomon Fabricant, "Recent Corporate Profits in the United States"; Charles A. Bliss, "Recent Changes in Production"; Solomon Fabricant, "Profits, Losses, and Business Assets, 1929-1934," *National Bureau of Economic Research Bulletin*, Nos. 44, 46, 50, 51, 55, dated, respectively, Jan. 27 and May 1, 1933, April 18 and June 28, 1934, April 11, 1935.

The estimate of ten billions of new capital formation in 1929 includes direct outlays as well as those through regular investment channels (cf. Moulton, *The Formation of Capital*, p. 141).

⁴⁵ Federal Trade Commission, *op. cit.*, pp. 56-69; also, "Shifts in Income Concentration," *National Bureau of Economic Research Bulletin*, No. 34, Nov. 8, 1929.

⁴⁶ Federal Trade Commission, *op. cit.*, p. 58, Table 10. Cf., also, the estate-tax returns filed yearly with the Office of Internal Revenue and published in its annual *Statistics of Income*, which, however, omits estates of gross value less than \$50,000 (\$100,000 before 1932) and thus provides no satisfactory basis for calculating general wealth distribution in the United States.

⁴⁷ "Shifts in Income Concentration," *National Bureau of Economic Research Bulletin*, No. 34. Whether or not inequality of incomes has increased or diminished in the present century has not yet been satisfactorily ascertained. Cf. Norris O. Johnson, "The Brookings Report on Inequality in Income Distribution," *Quarterly Journal of Economics*, Aug., 1935, pp. 718-724, together with comments by Harold G. Moulton, *American Economic Review*, Dec., 1936.

in keeping with the estimates given earlier that, in 1929, 10 per cent of the people accumulated 86 per cent of the nation's savings. Though most of these savings and those of the immediately preceding years were put to unproductive use, there is every reason to believe, as has already been pointed out, that whatever wealth they actually represent still remains within the control of this same small group, having merely changed hands among its members in the interim, and that, in the stock-market "shake-out" of the early thirties and the movement of investments from "weak" to "strong" hands in the depression years, there was probably a further transfer of wealth from the middle income brackets to the upper 10 per cent and thus a still further concentration in the coffers of the few.⁴⁸

SECTION 124. AMERICA'S WEALTH-PRODUCING CAPACITY

Three divergent views may be advanced of America's capacity for wealth production.⁴⁹ The first regards capacity and actual output as one and the same, so that eighty billions of dollars in productive output in 1929 would measure the productive capacity also.⁵⁰ A second view draws a distinction between actual output and potential output, assuming other economic factors to remain unchanged except consumer demand. A third view defines capacity without any particular reference to the existing economic organization. A recent Brookings study, adopting the second of these views, comes to the conclusion that from 1900 on, and particularly from 1925 through 1929, productive capacity in the United States has for the most part been in excess of output, that there has been no general tendency for the percentage of excess to increase, and that in 1929 an output 19 per cent greater than was actually realized could have been attained without exhausting existing business or other economic facilities.⁵¹ Such an increase would have raised our productive

⁴⁸ Cf. Robert H. Jackson, "The Rich Get Richer," *New Republic*, Aug. 28, 1935, pp. 68-69; but observe caution in n. 46, above, with respect to use of estate-tax returns.

⁴⁹ Regarding the nation's natural resources and their conservation and control in the interests of public welfare, see National Planning Board, *Final Report, 1933-1934* (Washington, D. C., 1934); National Resources Board, *Report on National Planning and Public Works*, and its *State Planning: A Review of Activities and Progress* (Washington, D. C., 1934 and 1935).

⁵⁰ Stuart Chase, "Our Capacity to Produce," *Harper's Magazine*, Feb., 1935, p. 346.

⁵¹ Cf. Nourse and Associates, *America's Capacity to Produce*, pp. 373-395, 403, 410-

output that year from eighty to ninety-five billions in dollar value. In short, in 1929 our productive capacity could probably have accommodated, not only the eleven-billion-dollar increase in output mentioned earlier, but a fifteen-billion-dollar increase.

The deficient element in the picture was effective consumer income. Had some method actually been provided in 1929 for increasing this factor—say, by transferring some of the unproductive savings from the upper income brackets to augment mass purchasing power—the standard of living for the majority of the American people, as already suggested, might have been considerably lifted and the depression itself might have been prevented by avoiding the stock-market dislocations which in large part precipitated it. What the effects of any such transfer would actually be is still of course highly conjectural, but the possibilities are nevertheless worth presenting here.

Another prominently mentioned survey of American productive capacity adopts the third of the aforementioned definitions and asserts that in 1929 not only fifteen but fifty-six additional billions of output might have been produced, disregarding the present organization of the economic system. Such a hypothetical result may of course be largely discounted, although the study also presents a comprehensive budget of what, in 1929 dollars, might be regarded as a reasonable standard of living for the American people, which budget is well worth serious pondering.⁵²

About both the studies just mentioned Stuart Chase has considerable to say of an interesting character in an article in the February, 1935, issue of *Harper's*; but, while he offers some constructive observations, he makes the assumption that in 1929 American credit had reached the "bursting point" and that at the time of the World War "psychological forces" raised mass standards of living in this

415, 424, 429-430. The statements on these pages are not wholly consistent in their assumption that existing economic organization is being left intact. Cf., also, review by Arthur F. Burns, *Journal of Political Economy*, Oct., 1935, pp. 697-700, for critical appraisal of the methods employed by Nourse and Associates in *America's Capacity to Produce*, together with his later and more comprehensive review in *Quarterly Journal of Economics*, May, 1936, pp. 476-523, and replies to his attacks by H. G. Moulton, *American Economic Review*, Dec., 1936.

⁵² Harold Loeb and Associates, *The Chart of Plenty* (New York, 1935), pp. 13, 170-178.

country.⁵³ As a matter of fact, in 1929 American financial resources were in no sense exhausted, and the cause of greater income for the American people during the war was not a "psychological force" but the fuller use of our productive equipment brought about by abnormal European demand, providing, as it did, unprecedented purchasing power for the working classes.

Find some way to enhance mass buying power in peace time, and similar results will undoubtedly be forthcoming. In this connection it has been suggested: (1) that sufficiently high income, inheritance, gift, and excess profits taxes can lay substantial hold upon the unproductive surplus in an orderly way; and (2), that sizable old-age pensions, "social-credit" transfers, extensive public-works projects to provide public wealth for the use of all at low cost, and other similar devices can be perfected to enhance consumer demand. The method of achieving the end sought is immaterial here. The essential point is that the interests of the majority of businessmen, farmers, professional men, employees, and all others among 80 to 90 per cent of the American people would be best served by a more effective distribution of wealth and income, to the end that existing productive capacity might be more completely utilized and general American living standards raised to at least a minimum of decency.⁵⁴

SECTION 125. CORPORATE WEALTH AND OWNERSHIP

A large part of the difficulty in achieving a more effective distribution of wealth and income in this country lies in the increasing control over economic forces exercised by the corporate form of business organization, which Adam Smith decried and which (since it readily leads to monopoly) has long been suspect in the United States.

Corporate wealth and ownership have certainly become dominant factors in American economic life, being measured by probably at least 115 billions in dollar value in 1922, or by about one third of the

⁵³ Stuart Chase, "Our Capacity to Produce," pp. 343-352.

⁵⁴ Cf. Reports of National Planning Board and National Resources Board, cited in n. 49, above; also, Harold G. Moulton, *Income and Economic Progress* (Washington, D. C., 1935), in which is stressed the need for reduced price levels; and Mordecai Ezekiel, *\$2,500 a Year* (New York, 1936), in which planned "industrial adjustment" is advocated for the achievement of a broader diffusion of purchasing power.

estimated material wealth, rising to 207 billions in 1929, or around half the estimated total that year, and in 1932 still standing at 181 billions despite the disastrous inroads made by the depression elsewhere. Besides controlling approximately half of our economic wealth, the corporation today dominates the principal portion of the nation's exhaustible natural resources.⁵⁵ And at the top are

⁵⁵ Cf. Federal Trade Commission Report, *op. cit.*, pp. 4-5, 132-135, and the Statistics of Income, mentioned below. The total tangible corporate wealth for 1922 given in the Commission's Report, 102 billions, excludes outside corporate investments, which should, however, be added, since these are readily convertible into cash assets. The reason given by the Commission for excluding outside investments confuses assets with liabilities, which are offsetting and not duplicative items. This confusion is further evidenced in the Commission's assumption that the total of corporate stocks, bonds and mortgages, with outside investments deducted, should be the same as the total corporate wealth (p. 133), apparently overlooking the fact that net surplus and undivided profits must likewise be accounted for. In short, it is stocks, bonds, and mortgages (98.5 billions in 1922) *plus* surplus and profits (apparently around 17 billions in 1922) which should be equal to net corporate assets or wealth, i.e., 115 billions in 1922, according to the estimate of the present writer.

The 115-billion-dollar estimate for 1922 was secured by the present writer by multiplying the average ratio of total net assets to capital assets, for the years 1926 through 1932 as recorded in the Office of Internal Revenue's *Statistics of Income for 1932* (pp. 47-49), into the Office's 67.9 billions of corporate capital assets for that year (*Statistics . . . for 1922*, pp. 40-43). This ratio averaged 1.7 and ranged from 1.6 to 1.8. Total net assets as recorded in the Statistics of Income for the later years were taken as the sum of cash, receivables, inventories, investments, capital assets, and miscellaneous assets, minus the sum of payables and miscellaneous liabilities. Capital assets included real estate, buildings, and equipment, less depreciation.

The 115-billion-dollar estimate for 1922 and the estimates for later years are based upon incomplete statistics of income, only active reporting corporations that file income data being included (89 to 90 per cent of the total reporting from 1927 through 1932), and, of these, only those are included which submitted balance sheets to the Office of Internal Revenue, the latter representing from 79 to 89 per cent of the active corporations from 1926 through 1932. The omitted corporations, however, are the least important as affecting the total of corporate wealth. The insignificant proportion of the corporations omitted is indicated by the fact that they represent only from 1.5 to 2.5 per cent of total corporate sales and income. Conjectural adjustments on this score, insignificant in relative amount, have not been attempted by the present writer, although they might readily be made. Cf. Gardiner C. Means, "The Growth in the Relative Importance of the Large Corporation . . .," *American Economic Review*, March, 1931, p. 15.

For a breakdown into major industrial groups for 1922, see Federal Trade Commission Report, p. 141, Table 75. To accommodate the omitted investment items in the estimated totals in this table, two methods may be employed: one, to raise each total, excepting finance and trade, about 13 per cent (the difference between 102 and 115 billions); the other, to multiply the Office of Internal Revenue totals for capital

two hundred corporations with individual assets ranging into the hundreds and the thousands of millions.⁵⁶

Corporations are nominally owned by their stockholders, of whom, in the peak year of our prosperity, in 1929, there were probably not more than from four to seven millions in the United States, or between 3 and 6 per cent of the population, a conclusion entirely in keeping with other findings here recorded. In other words, there is every reason to believe that stock ownership in this country is chiefly in the hands of the same small group which accumulates 86 per cent of the nation's savings and owns 90 per cent of the wealth. In that sense, ownership of American corporate enterprise is not "widely dispersed." On the contrary, it has been and it remains very highly concentrated.⁵⁷

Not only do corporate wealth and ownership show the same pattern of concentration as do wealth and income in general, but corporate control of production and price has become even more marked. Corporate organization dominates from 90 to 100 per cent of the output and the employment of such outstanding American industries as manufacturing, mining, railroad transportation, and part of building and construction.⁵⁸ Agriculture is virtually the

assets for these groups for 1922 (*Statistics . . . for 1922*, pp. 40-41) by the respective ratios of net assets to capital assets for these groups as recorded for later years (see above). The same substantial results were achieved by the present writer with both methods, except in finance and trade, for which the Trade Commission's totals (so far as they go) are apparently inaccurate.

⁵⁶ Cf., next section, below; also, Berle and Means, *The Modern Corporation and Private Property*, pp. 18-24, bearing in mind that these authors deal with gross rather than with net assets and with nonbanking corporations only.

⁵⁷ Cf. *Statistics of Income for 1929*, pp. 8-11, 267-268; Berle and Means, *op. cit.*, pp. 56-62, 372-374; Herman T. Warshaw, "The Distribution of Corporate Ownership in the United States," *Quarterly Journal of Economics*, 1924-25, pp. 15-38 (28); Gardner C. Means, "The Diffusion of Stock Ownership in the United States," *Quarterly Journal of Economics*, Aug., 1930, pp. 561-600; also, more recent estimates by the Twentieth Century Fund, Inc. The dispersion of stock ownership within a given corporation is an entirely different question, to be dealt with in the following section.

⁵⁸ For manufacturing industry, see Bureau of the Census, *Fifteenth Census of the United States, Manufactures, 1929* (Washington, D. C., 1933), I, 95, Table 2, including the table headnote which points out a slight lack of comparability between the 1919 and 1929 figures; cf., also, Berle and Means, *op. cit.*, pp. 14-15.

For public utilities, banking, and finance, see *ibid.*, p. 13, together with the references there indicated.

For the mercantile field, see *ibid.*, p. 15; also, Bureau of the Census, *Abstract of*

only major field in which individual enterprise remains the rule.⁵⁹

In a recent study by Gardiner Means, Economic Adviser for the Department of Agriculture, covering an eight-year period from 1926 through 1933, it seems to be rather conclusively demonstrated that, in certain of the corporately dominated fields mentioned above, prices and production are "administratively controlled," that is, they are deliberately protected against competitive influences.⁶⁰ The result is that, while competitively controlled agricultural commodities changed little in *price* during the boom years and dropped precipitately during the depression until in 1932 their price was less than 40 per cent of the 1926 averages, the prices of agricultural implements, motor vehicles, and iron and steel dropped only from 6 to 20 per cent. At the same time, the *output* of agricultural commodities remained about stationary up to the inauguration of the Federal control program in 1933, whereas the output of the aforementioned corporately dominated commodities rose as much as 50 per cent from 1926 to 1929 and then dropped from 80 to 83 per cent below their 1926 levels.⁶¹

The competitive benefits of a drop in price and a maintenance of output during depression are well known. They accrue to the

the Fifteenth Census, p. 917, Table 4, and p. 894, Table 10, which give the basic figures from which the percentages in the text were prepared. For a general survey of the results of the recent Federal mercantile census, see Theodore N. Beckman, "Highlights of the Wholesale Census, 1933," *Survey of Current Business*, Sept., 1934, pp. 16-19; and John Guernsey, "Summary of the Retail Census of 1933," *Survey of Current Business*, Oct., 1934, pp. 16-19.

For mines and quarries, see Bureau of the Census, *Abstract of the Fourteenth Census of the United States*, p. 1278, Table 14, and *Fifteenth Census of the United States, Mines and Quarries: 1929*, p. 14.

Regarding service and construction industries, a census of hotels was undertaken for the first time with the Fifteenth Decennial Census covering the year 1929. For earlier years, no comparable data exist. See, also, *Fifteenth Census of the United States, Construction Industry, 1933*, pp. 12-13, Tables 1 and 2; Berle and Means, *op. cit.*, p. 16; W. A. Ruff, "Summary of the 1933 Census of Service Establishments, Places of Amusement, and Hotels," *Survey of Current Business*, Dec., 1934, pp. 16-19.

⁵⁹ Cf. *Abstract of the Fifteenth Census of the United States, 1930*, pp. 546, 548, 551. Tables 21, 23, 25.

⁶⁰ Cf. Gardiner C. Means, *Industrial Prices and Their Relative Inflexibility*, Senate Document No. 13, 74th Congress, 1st Session (Washington, D. C., 1935); also, Berle and Means, *op. cit.*, pp. 18-29.

⁶¹ Means, *Industrial Prices . . .*, p. 8. Cf., also, Frederick C. Mills, "Price Data and Problems of Price Research," *Econometrica*, Oct., 1936, pp. 301-303.

people as a whole and assist in the re-establishment of a level of price and production from which an upturn can normally begin. The benefits of deliberate price control, while factories reduce production and employment, accrue only to the dominant corporations themselves.⁶² The rest of the nation suffers disastrously, as it has suffered in the depression of the thirties.

The most important effects of such corporate control in depression is upon income, employment, and profits. Not only do corporations today apparently own one half of our national wealth and almost completely dominate the fields of manufacturing, transportation, finance, wholesale trade, mining, and construction, both in output and in employment, but corporations now employ on the whole more than 50 per cent of the country's wage earners, over three fourths of whom work in the larger corporations where the business-cycle hazard is most pronounced.⁶³ This is not to gainsay the value of large operating units and aggregations of capital in rendering most effectual much of modern mass production. The questions here are directed wholly at the continuance of capricious individualistic controls where widespread economic and social problems are involved.

As was indicated at the beginning of this review, the people of the United States now live in a money economy and depend in the main upon money income to obtain desired commodities and services, to maintain their homes and farms, to give their children an education, and to perpetuate cherished institutions and ideals. In the spending of consumer income in America, the family unit remains the primary unit, but in the dispensation of income, the household and the individual—whether worker or enterpriser—have been definitely pushed into the background. In their place, the ubiquitous corporation has become the arbiter of what a man's income shall be, of how high the level of prices of consumable goods shall rise against which he must match his purchasing power, and of whether he shall or shall not work. It would seem, furthermore, that the larger the

⁶² Means, *Industrial Prices . . .*, p. 22.

⁶³ Cf. Mitchell, *Business Cycles*, pp. 86, 89; for 1929 figures, which are about the same, see *Fifteenth Census of the United States, Manufactures*, I, 62, Table 1; *Mines and Quarries*, p. 23, Table 18.

corporation, the more disastrous is its effect upon employment shrinkage and the more effective is its protection of profits in a depression.

In the relatively slight depression of 1921-22, the drop of employment in agriculture and in other fields in which individualistic enterprise and small concerns still prevail, was, it seems, only from 3 to 5 per cent. In the corporately dominated fields, the drop was apparently from 19 to 30 per cent on the average, and as high as 39 per cent in the larger corporations. In the more severe depression of the thirties, the employment shrinkage in corporately controlled industries was, it appears, from 30 to 56 per cent by 1932, whereas in agriculture it was apparently only 4 per cent.⁶⁴

Alongside the unemployment havoc wrought by large corporations during a depression, note the effect upon profits. In 1931, by far the greater number of corporations filing balance sheets with their tax returns were reporting losses, although how much of "concealed profits" was being hidden in large salaries and bonuses to officers is not yet fully discoverable. In any event, 0.2 per cent of the corporations, the 632 largest, not only showed no losses as a group, but reported net profits, in that depression year, of over a billion and a

⁶⁴ Cf. Mitchell, *Business Cycles*, p. 88, Table 2; also, Willford I. King, *Employment, Hours and Earnings in Prosperity and Depression: United States, 1920-1922* (New York, 1923), pp. 55-58, 60. In King's more detailed figures (p. 55), metals and metal products, one of the fullest corporately organized of all the industries, showed an employment decline of more than 50 per cent.

Cf., also, Kuznets, "National Income, 1929-1932," *National Bureau of Economic Research Bulletin*, No. 49, June 7, 1934, p. 8, Table 6; Meredith B. Givens, "Employment During the Depression," *National Bureau of Economic Research Bulletin*, No. 47, p. 2, Table 1.

From 3 millions of unemployed in April, 1930, the total apparently rose to over 13 millions in March, 1933, after which it receded by September, 1933, to around 10 millions, where it held (despite heroic government efforts) for over two years. Cf. National Industrial Conference Board, *Bulletin* (Nov. 10, 1934), pp. 84-85, (March 10, 1935), pp. 18-19, also more recent bulletins. While income from wages was thus showing a precipitate drop, income from dividends was maintained at a high level. Cf. Theodore J. Kreps, "Dividends, Interest, Profits, Wages, 1923-1935," *Quarterly Journal of Economics*, Aug., 1935, pp. 561-599. This article is well worth detailed study and has been carefully prepared: note, however, the adherence to "productive" income, rather than to "total aggregate" income (pp. 566-567), as a base against which to measure wages and dividends (for a more accurate base, see Warburton, *op. cit.*, p. 86, Table 1, last column).

half dollars. Incidentally this 0.2 per cent of the corporations controlled more than half the corporate assets of the nation in 1931 and an even greater proportion in 1932. That year most of the corporations still showed losses; and, of those showing net profits, a mere 201 corporations received more than half the gain, that is, one and one-third billions of net profits in the worst year of the depression. During the same year, labor income had fallen 40 per cent below its 1929 level. In other words, while 201 corporations made net profits of one and one-third billions, the workers of the country lost over twenty-one billions, with about ten million fewer hands employed than in 1929.⁶⁵ Again, there is no intent here to assess the value of large corporations as such in the modern business economy.

SECTION 126. MAJOR ECONOMIC CONTROLS IN THE UNITED STATES

The high concentration of wealth and income pointed to in preceding pages results in a series of major controls over American economic and social life which would seem on the whole to be inimical to public welfare.

One of these controls is exhibited in the circumstance that 10 per cent of the people receive nearly half the income, accumulate all but a small fraction of the savings, and own around nine tenths of the wealth. Such a concentration in the hands of a relatively few people has several antisocial consequences. It tends, in the first place, to perpetuate the existence of a small ultraprivileged class (a very small fraction of even the upper tenth), chiefly idle and unproductive, who live for the most part upon dividends and capital gains.⁶⁶ In the second place, the automatic accrual, within the upper

⁶⁵ Cf. Robert H. Jackson, "The Big Corporations Rule," *New Republic*, Sept. 4, 1935, p. 100; also, "Statistics of Income" for 1931, 1932, and 1933; and William L. Crum, "The Effect of Size on Corporate Earnings and Condition," *Publication of Harvard University Graduate School of Business Administration*, Boston (June, 1934), XXI, No. 5; Ralph C. Epstein, *Industrial Profits in the United States* (New York, 1934), espec. chapters on earnings of large and small corporations; and William A. Paton, *Corporate Profits as Shown by Audit Reports* (New York, 1935). Cf., also, unemployment statistics in preceding footnote.

⁶⁶ Cf. Jackson, "The Big Corporations Rule," p. 101; Leven *et al.*, *America's Capacity to Consume*, p. 26. In 1929 there appear to have been around two million "income recipients" who were not gainfully employed and who were thus doubtless living for the most part upon investment returns.

tenth, of vast funds of redundant savings, for which no productive use can be found by their possessors and from which there can result such a disruption of security markets and inflation of equity prices that prolonged depression and untold hardship for the masses are natural consequences, is nothing short of a social calamity. A proper balance between mass purchasing power and productive savings must be achieved and must be maintained if a progressively higher standard of living for the American people is to have any realistic meaning as an attainable ideal. In the third place, that 10 per cent of our people account for over one third of the consumptive expenditures of the nation, has other questionable results, long since pointed to by able writers.⁶⁷ Such a predominant exercise of purchasing power by a small group tends to set artificial conventions which those lower down the income scale try to imitate. Shop girls vie with society women in their dress. Clerks go without adequate food and shelter to maintain eight-cylinder automobiles. The passions and ostentatious displays of the rich are envied and aped. Caste ideals, acquisition for the sake of having, conspicuous waste, become important factors in the lives of millions of our people, whose natural and laudable effort to reach higher levels of satisfaction and happiness is thus turned to the worshiping of false idols which they have mistaken for symbols of real worth.

A second major control of our economic life is seen in the power exercised by business corporations over the nation's wealth, income, production, price structure, and employment, a power which in prosperous years exacts all the traffic will bear and in years of depression protects the profits of the larger units while deliberately curtailing production, fixing prices, and throwing millions of people out of work. The larger the corporation, the more securely does it stabilize its income and profits, while, at the same time, the more potent is the social havoc it creates in depression (with respect to loss of employment and of mass purchasing power), through its ability to set administered prices, to let production lag, and to force workers into idleness.

⁶⁷ Cf. espec. Charles H. Cooley, "The Institutional Character of Pecuniary Valuation," pp. 550-552; and Thorstein Veblen, *The Theory of the Leisure Class* (New York, 1899).

It would seem to go without saying that such a powerful agency for social and economic dislocation and despotism, as the hundred-million-dollar corporation has come to be, should be amply surrounded with general governmental counter-controls for safeguarding the public interest; but exceedingly little of real significance in the United States appears to have been achieved in this direction as yet.⁶⁸

A third major control of our economic life is seen in the activities of those few super-wealthy businessmen, among the upper 10 per cent, who actively direct corporate life itself and thus the investments of the rest of their class, and who among them compose the interlocking directorates of the largest two hundred corporations and pyramided holding companies. These directors total two to three thousand at most; and, since many of them are inactive, "the ultimate control of nearly half of industry" lies in the "hands of a few hundred men."⁶⁹

This small group of wealthy men, in reality, domineers the economic life of the nation. Among them are individuals who in their own way incidentally serve the public good. But the harmful effects already enumerated far outweigh the incidental good done here and there. It is about time, furthermore, that the freemen of a great democracy such as ours abjure the guardianship in its economic affairs of any business oligarchy, especially of an oligarchy that piles up colossal wealth for a privileged few and leaves the masses in insecurity and privation.⁷⁰

⁶⁸ Cf. Berle and Means, *op. cit.*, pp. 8-9, 18-46; also, their Appendices B, C, D, and E. In utilizing this pioneer work, care should be taken to distinguish between gross and net assets as measures of wealth (see Means's article in the March, 1931, issue of the *American Economic Review*), a distinction not always consistently followed by the authors (see their Table 3, p. 36, col. (c) of which represents net rather than gross assets and all rather than merely nonfinancial corporations in at least one instance); care should also be taken to hold in mind the confusion over offsetting vs. duplicate wealth items already mentioned (n. 55, above). Cf., also *Statistics of Income for 1933*, p. 169, Table 16, last column: The two hundred corporations there recorded are not as a whole the same corporations analyzed by Berle and Means.

⁶⁹ *Ibid.*, p. 46 n. Cf., also, Harold L. Ickes, Chairman, "Report of National Power Policy Committee on Public Utility Holding Companies," to the President, released March 7, 1935; Federal Trade Commission, *Utility Corporations*, Senate Document No. 92, 70th Congress, 1st Session, 1927-28, in 85 or more parts; James C. Bonbright and Gardiner C. Means, *The Holding Company* (New York, 1932).

⁷⁰ Cf. Woodrow Wilson, "Freemen Need No Guardians," *Fortnightly Review*, Feb., 1913, pp. 209-218.

Several additional consequences of this inner control of our economic life may be commented upon. It is a commonplace that those who administer big business protect their private interests jealously and see to it that their privileged position is perpetuated through close friends and relatives. It may be "three generations from shirt sleeves to shirt sleeves" with modest inheritances, but with large fortunes this is not in any sense true. As the Counsel for the Bureau of Internal Revenue recently pointed out, large fortunes are so bulwarked by trusts, so safeguarded against dissipation, and so invested in self-administering and governmentally protected securities, that, although the beneficiary may squander a portion of the income, the principal is safe beyond peradventure and keeps on growing, willy-nilly. Thus the large estates "not only perpetuate themselves but are larger as they pass from generation to generation."⁷¹

Recently the "fear" has been expressed in certain quarters that inheritance-tax proposals would, if enacted, work great hardship upon the heirs of large fortunes. How groundless such "fears" are is evidenced not only in the practice just mentioned, of setting up irrevocable trusts for children and even grandchildren, but also in the wealthy father's gifts of money and property, in his placing sons on boards of directors, in his letting them participate in profitable transactions, and in his setting them up in businesses of their own or in positions with lucrative salaries and bonuses, long before his death.⁷²

Relatives and friends of wealthy men thus get into places of pecuniary importance, through which existing concentrations of wealth and income are continued and a wealthy caste is perpetuated, much as a line of medieval princes is perpetuated. Not through natural ability primarily, but through privileged access to favored positions, do disproportionate salaries, fees, bonuses, and profits arise and accumulate. The wealthy business class is perforce not a closed caste, but opportunity is by no means free and open to all on the basis of ability and merit.⁷³

In this connection the time is more than ripe for the dissipation

⁷¹ Robert H. Jackson, "The Rich Get Richer," p. 69.

⁷² Cf. Cooley, *op. cit.*, pp. 553-555.

⁷³ *Ibid.*, p. 72.

of the fiction that ownership of common stock and control of corporate wealth are one and the same. We have pointed out a sense in which stock ownership is not "widely dispersed," that is, dispersed among the people in general, only from 3 to 6 per cent of the population being involved. There is another sense of dispersion, however, in which stock dissemination is exceedingly "wide" or diluted, and that applies within a given representative corporation. In fact, here the dispersion has become relatively so great that corporate ownership and corporate control are as a rule exercised by altogether different groups, the one group being the stockholders and the other group being a very small minority of the stockholders or merely the management itself. In the largest corporations, the principal stockholder usually owns less than 1 per cent of the stock, and "it may be said that in general the larger the company, the more likely is its ownership to be diffused among a multitude of individuals." In such corporations, and in this respect they are decidedly typical, the stock holdings are sufficiently scattered and shifting that control rests beyond question with the directors and officers, who themselves need to hold but a relatively insignificant block of shares in each of their interlocking interests to maintain effective control over them all. Under such circumstances, the crude device, which was highly criticized some years back, of issuing nonvoting common stock, partakes somewhat of the nature of a naïve anticlimax. A much more subtle development has long since placed the control of corporate activity in the hands of a few self-appointed captains of industry, "nominally responsible to the one group, the security holders, but factually responsible in all too many cases to no one."⁷⁴

Finally, there should be mentioned a fourth control of our economic life, or, rather, a group of controls, which may some day be merged into one composite democratic control. This stands on quite a different footing from the other three. Besides the self-appointed supervisory role exercised by big-business management, there are various subordinate economic roles played by promoters, technical

⁷⁴ Cf. Berle and Means, *op. cit.*, pp. 47-52 (52), 66-68, 69-125; Means, *Industrial Prices and Their Relative Inflexibility*, pp. 27-28; and the articles by Means and Warshow on stock diffusion cited in n. 57, above.

experts, moneylenders, consumers, governmental officials, and others. These subsidiary guides have developed as business activity has developed, but they are by no means all of a piece so far as a co-ordinated system of general economic controls is concerned. Usually they operate under the auspices of big-business management; occasionally they make themselves felt independently; sometimes they become a part of governmental supervision.

Within each business unit or interlocking group of units, effective co-ordination for private ends is achieved by business management, but there its effectiveness stops. Co-ordination between independent units, the reduction of general business hazards, the surrounding of mere moneymaking with sanctions to prevent fraud and false representation, the alleviation for the common good of the predatory quest for profits—these are functions which the fourth group of controls, unified by democratic governmental supervision, must ultimately come to exercise fully in the public interest.⁷⁵

This fourth group of controls is still relatively inconspicuous and ineffective compared with the three major controls previously mentioned. The role played by federal, state, and local governments in the United States, while becoming increasingly important, is still far from sufficient to cope efficaciously with the social inequities and dislocations caused by the high concentration of our income and wealth. In a democracy, however, this fourth control is of highest importance and must sooner or later exert its proper influence in shaping the destiny of the American people.⁷⁶

What are the important concepts and problems covered in this survey of the income and wealth of the American people? They are money income, productive and total aggregate income, nominal and real per capita income, the functional and class distribution of income, consumptive expenditure and savings, the capacity of people to consume, the flow of monetary payments through business concerns to the ultimate consumer and of savings into capital markets, the good and bad use of savings, the meaning of capital formation

⁷⁵ Cf. Mitchell, *Business Cycles*, pp. 154-172.

⁷⁶ Cf. *ibid.*, p. 168, and Kuznets, "National Income, 1929-1932," pp. 8-11, for figures covering governmental participation for 1919-21 and 1929-32. For a broad view of the problems here involved, see Stuart Chase, *Government in Business* (New York, 1935).

and its dependence upon consumer demand, economic wealth and its distribution, national capacity for wealth production, corporate wealth and ownership, and the economic controls that are dominant in American life. With respect to some of these, we have sufficient information to draw reliable conclusions. Regarding the rest, much more analysis of data is apparently needed before completely satisfactory definition and understanding are possible. But, all in all, we already know enough to appreciate realistically what the major economic problems of the United States are.

PART VI
CRITICAL DEMONSTRATIONS AND
CONCLUSIONS

CHAPTER XXX

INCOME DISTRIBUTION AND ECONOMIC PROGRESS

THE PRECEDING FIVE parts of this volume cover its main arguments with the exception of the two concluding chapters at the very end of the book. The other chapters of Part VI, the four that follow here, give point to the main arguments by indicating how the latter may be applied to current attempts at solving important modern economic problems. They also indicate the kind of difficulties, methodological and otherwise, to be anticipated in such attempts and the differences in informed opinion that continue to exist.

Since these four chapters are in the nature of critical demonstration exercises, they should not be regarded as standing on their own feet. The five volumes analyzed in the chapters, together with the critical commentaries also made use of, should be before the student as he proceeds and should at every stage of the discussion receive attention along with the text. Only thus can these four chapters be best understood.

In the last chapter extensive use was made of the findings of the Brookings Inquiry into Income Distribution and Economic Progress. There have been a number of attacks upon that Inquiry and its results, in the light of which a critical demonstration-appraisal will be attempted in the present chapter, together with an evaluation of the bearing of scientific method thereon.

The Brookings Inquiry in question consists of the four volumes to which scattered references have already been made.¹ Its principal

¹ The following abbreviations will be used in referring to these volumes in the present chapter: ACP, for *America's Capacity to Produce*; ACC, for *America's Capacity to Consume*; FC, for *The Formation of Capital*; and IEP, for *Income and Economic Progress*.

Among the numerous reviews that have appeared of these Brookings volumes, the following selected references may be cited: Mario Alberti, *Rassegna Numismatica*, Jan., 1936, pp. 37-41; Arthur F. Burns, *Journal of Political Economy*, Oct., 1935, pp. 697-700, and *Quarterly Journal of Economics*, May, 1936, pp. 476-523; Raymond

argument is given in the foreword of the first volume, which centers upon the "foundations of economic progress" and starts by raising a question as to the nature of those foundations. Are they to be viewed in terms of the much exploited traditional idea of the alleged necessity for ever more abundant money savings or in terms of the more modern idea of the virtue of a "larger flow of funds through consumptive channels"? "The forces controlling the division of the national income between savings and spending are...of great concern. Since the continued functioning of the economic system is motivated by the flow of money incomes, the steady and efficient operation of our economic society depends closely upon the allocation of monetary income between savings for capital expansion and expenditures for consumption goods. If one kind of adjustment is maintained, we may have steadily expanding production and rising standards of living; if another adjustment exists, economic growth may be retarded."²

Bye, *American Economic Review*, Dec., 1936, pp. 607-617, together with a reply (pp. 617-620) by Harold G. Moulton; R. B. Bryce, *Economic Journal*, Sept., 1935, pp. 538-541; Lewis Corey, *The Nation*, Aug. 1, 1936, pp. 132-134; Wm. L. Crum, *Review of Economic Statistics*, Nov., 1935, pp. 116-130 (127); A. E. Grauer, *Canadian Journal of Economics and Political Science*, May, 1936, pp. 246-249; Norris O. Johnson, *Quarterly Journal of Economics*, Aug., 1935, pp. 718-724; Simon Kuznets, *Political Science Quarterly*, June, 1936, pp. 300-306; Emil Lederer, *Journal of the American Statistical Association*, Sept., 1936, pp. 629-631; Walther Lederer, *Social Research*, May, 1936, pp. 245-248; Cleona Lewis, *Journal of Political Economy*, Aug., 1935, pp. 530-547; H. A. Marquand, *Economic Journal*, June, 1936, pp. 332-333; Clifford B. Reeves, *Atlantic Monthly*, Aug. 1, 1936, pp. 217-225; Karl H. Stephens, *Weltwirtschaftliches Archiv*, Nov., 1935, pp. 233-241; Maxwell S. Stewart, *Nation*, May 15, 1935, pp. 577-578; Edward Stone, *Atlantic Monthly*, Dec., 1935, p. 88; Donald S. Tucker, *Mechanical Engineering*, Aug., 1935, pp. 507-508; A. Uggé, *Rivista Internazionale di Scienze Sociali*, March, 1936, pp. 213-216; Clark Warburton, *Journal of Political Economy*, Feb., 1935, pp. 84-101; Ray B. Westerfield, *Saturday Review*, Jan. 4, 1936, p. 16; H. Parker Willis, *Journal of the American Statistical Association*, March, 1936, pp. 218-220; Theodore O. Yntema, *Journal of the American Statistical Association*, Sept., 1935, pp. 632-633.

Burns and Kuznets use very similar arguments of an adversely critical character; Corey, Westerfield, and Willis are also adversely critical in general. Johnson, Lewis, and Warburton focus their comments primarily on the long-term trend of savings. Grauer and the Lederers offer criticism with respect to the price reduction program emphasized in the fourth volume. Bye raises the question of the interest rate and Moulton replies, with respect to which question, see, also, chaps. xxxi, xxxii, and xxxiii, below.

² ACP, pp. 5-6.

The traditional theory held that "the larger the percentage of the national income which was saved in any given year the greater would be the supply of productive capital and the greater the general economic well-being in the ensuing year." For more than a century now this classical view has been challenged. It has been argued that "saving may be greatly overdone," that expanding consumption or increased mass purchasing power is more important for national well-being, and that capital formation depends directly upon consumption demand rather than upon money savings. "Obviously it is a matter of great importance in modern industrial society that we learn where between these conflicting views the truth lies." In the past, statistical checks have been virtually impossible. Today, with more adequate data and better methods, "It seems not too hazardous an undertaking to attempt to analyze the issue anew and in more concrete and realistic terms, in spite of gaps, ambiguities, and inaccuracies of detail."³ This is the difficult task the Brookings Institution set for itself in its four-volume inquiry into the distribution of wealth and income in relation to economic progress.

SECTION 127. AMERICA'S CAPACITY TO PRODUCE

If, as the traditional theory maintained, capital goods always expand with increases in money savings, it is well to attempt to determine statistically, on the one hand, at what periods (if any), there have presumably been great expansions in money savings in the United States, and, on the other hand, at what periods (if any) there have been unusual increases in plant capacity as against actual output. The latter problem is attacked in the first of the Brookings volumes, *America's Capacity to Produce*, the other problem being reserved for subsequent volumes.

Among the critical reviews of the Brookings Inquiry that are cited in the first footnote of the present chapter, probably the most outstanding one is by Arthur F. Burns published in 1936. This review at least, among others, should be before the student in examining the appraisal that follows. Many excellent suggestions are made in the Burns article whether the candid student agrees with them or not. Here it will receive the focus of attention in connection with

³ *Ibid.*, pp. 7-8, 14-15.

our critical appraisal of the Brookings study. Burns's review begins with a brief outline of essential points in the first Brookings volume, together with the two outstanding conclusions of the volume: "(a) [that] there has been no cumulative piling up of 'excess capacity' over the last three decades; and (b) [that] our production even in boom times falls considerably short of possibilities"—short, in 1929, by about 19 per cent.⁴ Burns then goes on to submit four reasons why those findings appear unacceptable. These propositions are discussed below.

First: With respect to the important underlying concept of "capacity to produce," five propositions are set forth by Burns: (1) ideas about a maximum, (2) about "economic" versus "technologic" considerations, (3) about the indefinite character of the capacity concept, (4) about the significance of the particular definition chosen, and (5) about the alleged necessity for demonstrating how any indicated excess capacity might be utilized.

(1) The notion of a "maximum" is passed over lightly by Burns, it being averred that this is something "the Brookings Inquiry faces squarely."⁵ Much more, however, might have been said about this question, since any actual attempt to reach a given "maximum" of productive capacity through increased consumer demand would undoubtedly lead not only to a greater output of consumers' goods but also to expansions in plant capacity itself—thus creating a new "maximum."⁶

It is then asserted by Burns that the problem of maximum capacity is one of measuring the "sum of satisfactions" to be produced rather than measuring capacity "in terms of weight or bulk," a statement which some students may find it difficult to take seriously in the light of modern understanding. It is of course a truism that human satisfactions are the aim of economic endeavor, but hardly anyone except a dyed-in-the-wool classicist, clinging to an atomistic pleasure-pain psychology long since outmoded, would think today in terms of a statistical measure of human satisfactions as such.⁷ The Brook-

⁴ Burns, *op. cit.*, pp. 477-478.

⁵ *Ibid.*, p. 479.

⁶ Cf. Burns's statement at another point that output may be "indefinitely expandible" (*ibid.*, p. 481, last two lines). Cf., also, chap. xxxiii, p. 536 n. 49, below.

⁷ Cf. chaps. xii, xv, xvi, xvii, above.

ings Inquiry would seem to be much more practical and realistic than this.

(2) Furthermore, the "technological" frame of reference (of the Brookings study of capacity to produce) appears to include the prevailing "pattern of operative and commercial organization," which is, to be sure, "to assume the whole network of prevailing price relationships." The price factor thus *does* apparently enter into the Brookings estimate of capacity, and the "technological bias" of the study is broad enough to include this.⁸ To many students there will seem to be nothing contradictory here. The idea of regarding price relationships as temporarily stationary while examining in cross-section whether plant capacity is *at the time* greater than actual output, and by how much, is not to gainsay the dynamic considerations (pecuniary and other) which must be taken into account in determining how (if at all) any excess capacity thus found could be utilized.⁹

(3) "Maximum attainable capacity" can evidently be viewed in various ways. "The full use of the existing plant," without essential changes in the existing "system of economic practices," is undoubtedly one of those ways, and that appears to be all the Brookings formula of capacity to produce contemplated.¹⁰ If this is a crude practical notion (and certain inconsistencies in developing it in the Brookings study are important to hold in mind, as Burns rightly suggests) it may nevertheless seem sufficient for an exploratory attempt at a statistical approach to the major problem (aforementioned) with which the first volume of the Brookings Inquiry is concerned.

(4) Thus the "significance" of the explicit assumptions underlying the Brookings survey of America's capacity to produce would appear to be no more or less than that just indicated. Whether the assumptions are "restrictive" may not be deemed important, so long as they are suited to the pragmatic purpose in hand. If someone else wants to view "capacity to produce" in a broader or in a different way (as, for example, Harold Loeb does), he is at liberty to do so; but that would seem to be beside the present issue. And,

⁸ Cf. ACP, p. 415; Burns, *op. cit.*, pp. 480-481.

⁹ Cf. ACP, pp. 3-5; IEP, pp. 169-172.

¹⁰ Burns, *op. cit.*, pp. 481-482.

to emphasize what was said earlier, a cross-sectional view of output and idle plant, such as the Brookings study takes, would appear to carry no necessary implication either that the present price system is being left out of account or that it is being "suspended" or "modified."¹¹

(5) "*How the calculated slack of productive capacity could be taken up*" is assuredly an important question, but that is not apparently the problem with which the first Brookings volume is concerned. Its problem is diagnostic, not remedial. Nor does a remedy have to accompany every diagnosis in order for the latter to have meaning. The cure for cancer has not yet been found; nevertheless, cancer diagnoses are being made every day.¹²

Second: Exception is taken by Burns to some of the Brookings estimates of plant capacity, such designations being employed as "slipshod," "unexplained," "uncertain," "rough," "incomplete," "lacking for many industries," and "inadequately grounded in actual statistics," although Burns also states that "it is only fair to hold in mind that the measurement of capacity is an undeveloped statistical field" and that "bold estimating at critical points is often necessary" under such circumstances.¹³ It is well to re-emphasize the fact that the Brookings estimates of plant capacity are rough estimates, that they constitute preliminary excursions into a virtually unexplored field. At the same time it may also be well to recall what the Brookings authors themselves have to say about the matter. The following quotation applies to all four volumes of the Brookings Inquiry: "It must not be supposed that we are promising a complete and conclusive statistical demonstration. This would be impossible for the single reason that, rich as are our accumulations of economic data, they still fall far short of covering all the essential matters involved in our problem."¹⁴ In addition, it also seems pertinent here to hold in mind that the general validity of the Brookings capacity-estimates is vouched for by experts in the various industrial fields examined and that no effort has apparently been made to disprove the general Brookings conclusions based on these estimates.

¹¹ Cf. ACP, p. 424; Loeb, *The Chart of Plenty*, pp. 3-14.

¹² Cf. Burns, *op. cit.*, pp. 482-483. ¹³ *Ibid.*, pp. 484-487.

¹⁴ ACP, p. 17.

Third: With respect to the Brookings suggestion that there was just about enough idle labor in 1929 to have manned the idle plant and to have turned out considerable additional product, much more precision in the estimates seems to have been insisted upon by some of the critics than existing statistics allow or call for. How, it is asked, would over a million idle men have been put to work in 1929? How would they have been moved and housed? And would their individual skills have fitted the jobs available?¹⁵ These refinements would, once more, not appear to be a part of the preliminary problem which the statistics of the first Brookings volume attempt roughly to answer. At the same time, although the situation is not completely comparable, during the depression of the early thirties in the United States, several times a million idle men were put to work (for example, through the C.W.A. and C.C.C.), were in part "demobilized," and were put to work again elsewhere, without the matter of mobility or housing or skill offering an insurmountable obstacle. Furthermore, this country faced a somewhat similar situation during the first World War. And in 1929 there was hardly what one would call a general housing shortage.

Fourth: The question is raised in some of the criticism as to "how the potential increase of output of 19 per cent in 1929 could have been harnessed." The consideration has already been noted that it was apparently not the purpose of *America's Capacity to Produce* to answer this specific question. The main problem which confronted the authors of that volume was whether or not "excess capacity" existed during the first third of this century and whether there was a greater piling up of such excess at certain times and not at others. The answer to critical questions at this point is, in fact, much simpler than appears to be appreciated in some of the criticism. Nor does it need to be couched in terms of "intensified competition," "cyclical forces," or slow or fast adjustments, whether in the "short" or in the "long" run.¹⁶ The answer suggested at the end of the conclusions of the first Brookings volume, is that, if *in some way* fifteen billion dollars of extra purchasing power could have been made available to the people in 1929, the 19 per cent capacity gap in question might have been filled.¹⁷ Had such an increase in con-

¹⁵ Cf. Burns, *op. cit.*, pp. 487-489.

¹⁶ *Ibid.*, pp. 489-491.

¹⁷ ACP, pp. 429-430.

sumptive demand been afforded that year, other things beside the closing of the gap between actual output and "practical capacity" output would undoubtedly have happened, whether competitive, cyclical, adjustive, regulative, or pecuniary. In retrospect, and with a hypothetical situation before us, not only does no one know what else would have happened, but may it not be idle to speculate in detail about it? In short, the answer to what could have filled the 19 per cent output gap in 1929 may simply be that fifteen billion dollars of additional purchasing power could probably have filled it—"other things being equal." To secure a more realistic result would require an experiment with extra purchasing power, necessarily directed not to a hypothetical past condition but to some actual present situation.

One of the two problems outlined at the beginning of this section would thus seem to have been tentatively resolved, that is, in so far as the preliminary pioneering figures given in the first Brookings volume may be accepted, namely: The percentage margin of unutilized plant capacity in the United States from 1900 to 1930 appears to have been fairly uniform, no tendency to pile up relatively more capital equipment at certain times having been found to exist.¹⁸

SECTION 128. AMERICA'S TENDENCY TO SAVE

The second problem, it will be recalled, has to do with money savings; and both problems were projected to test whether the traditional or the more modern theory of capital formation and economic progress is the more acceptable one. The traditional theory regarded "oversaving" and "excess capacity" as interchangeable terms, and this seems to be overlooked in some of the critical commentaries.¹⁹

In dealing with the second volume of the Brookings studies here under review, *America's Capacity to Consume*, we shall again, in a general way, follow the order of topics presented in the striking critical review by Burns. These cover: the Brookings concept of national income; its estimate of American money savings in 1929; and the trend of money savings, individually with respect to the size of income and nationally during the first three decades of the twentieth century.

¹⁸ *Ibid.*, p. 421.

¹⁹ Cf. Burns, *op. cit.*, p. 492.

Regarding the concept of national income, Burns's critical analysis of it begins with what seems like a misapprehension about the Brookings definition of "aggregate" income. Then the inclusion of capital gains is objected to; what appears to be an inconclusive argument about income is presented in terms of credit, volume of payments, and wealth; and the matter is apparently allowed to rest there without any other income concept being set up.²⁰

In the pages that are cited by Burns, the Brookings authors, as a matter of fact, make a sharp differentiation between *national income* as "a net figure containing no duplications," and *total aggregate income*, in which duplications exist and in which capital gains are included.²¹ The Brookings investigation does not use the net *national income* "as a basis of measures of expenditures on consumers' goods and of savings"; it uses the *total aggregate income*. Moulton's reasons for including realized capital gains in the latter figure seem to the present writer not only "plausible" but rather "conclusive." Furthermore, the arithmetical illustration of alleged difficulties given by Burns apparently exemplifies, in the main, a failure to realize what aggregate monetary income is, how it serves as a basis for everyday expenditure, money savings, and credit extensions, and how conversions of wealth-assets can result in an increase in aggregate income without thereby affecting net productive income at all. The aggregate income of A. and B., in the illustration given by Burns, does not appear to be \$10,000, but \$11,000 (\$5,000+\$4,000+\$2,000 realized on the sale of shares of stock). There is no provision in the said illustration for B.'s *purchase* of the stock he is selling to A. and thus for any investment *deductions* that year (we must apparently assume that he bought the stock in a previous year). The expenditure of A. and B. in consumers' markets is put at \$7,000, which, subtracted from \$11,000, leaves neither \$3,000 nor \$2,000, for possible investment purposes, but \$4,000, of which by assumption \$2,000 is already being invested in the said shares of stock sold by B. to A. Of course bank loans affect the "amount" available in the markets, but not the amount of immediate *income*, for they constitute *credit*, not income; whereas conversions of assets through actual sale do constitute immediate income to the seller

²⁰ *Ibid.*, pp. 493-495.

²¹ Cf. ACC, pp. 11-12.

(of the "aggregate" though possibly not of the "productive" variety).

Total *aggregate* income might conceivably, through wholesale conversions of assets, "travel to the outer extreme" of total *wealth* (not of "volume of cash transactions"!), and thus in rising markets "inflate the amount of money savings available for new investment." But, though inflated, the money savings are, under such circumstances, savings nevertheless; they are regarded as such by income recipients and they are available for further investment. When deflation sets in, such inflated gains simply become losses.

What this analysis and critical attacks along the lines indicated appear to demonstrate more than anything else is the need for more rigorous definition and general understanding of such basic concepts as total aggregate income, net productive income, credit, volume of payments, and wealth.²²

Turning to adverse comments on the Brookings estimate of American money savings in 1929—twenty billions of dollars including corporate surpluses—we find outlined for us by Burns an "elaborate piece of arithmetic" on which the estimate is supposed to be founded. The income distribution underlying it is viewed in the same commentary as a "patchwork based on scanty data and some dubious statistical devices"; the "frailty of the sample in the upper income brackets" is emphasized; and the whole procedure is apparently regarded "as little more than a labored guess." It is also stated in the same criticism, however, that, despite these difficulties, the figures "might, of course, be plausible"; that "no matter what method is used the data now available are rough and some guess-work will be necessary"; and that "the sorry fact is that our statistical knowledge of savings is entirely inadequate." While the preliminary character of the Brookings income, consumption, and savings estimates, like the productive-capacity estimates, should

²² Cf. Burns, *op. cit.*, pp. 493-494; ACC, pp. 9-14; IEP, p. 174; cf., also, Mitchell, *Business Cycles* (1928), pp. 149-151, regarding volume of payments. In calculating the inflated savings resulting from conversions of assets in rising markets in a given year, the cost of the assets is, of course, deducted from their selling price and only the capital gains are included in the total aggregate income of the nation. This is not true with respect to assets acquired *one* year and sold the *next*, which is the assumption in the Burns illustration commented upon.

of course not be overlooked, one can surely appreciate the difficulties involved without thereby discounting unduly the important exploratory contributions made by the second volume of the Brookings Inquiry in a pioneer field. It should also be noted here that the Brookings savings estimates for 1929, based upon budget surveys that show a considerable stability of consumptive expenditures on various income levels, were compared with results obtained from census data which were found to be generally confirmatory, and that the comparable savings figures secured by Lough and made use of by Burns are 9.3 billions as against the Brookings figure of about 9 billions, the additional 11 billions not included in Lough's net figure representing direct money savings (2 to 3 billions), capital gains (6.2 billions), and corporate surpluses (2.2 billions).²³ There would thus appear to be no serious reason why the 1929 Brookings savings estimates should not stand until or unless more complete data and possibly better methods provide still more reliable figures.

As for the trend of money savings since 1900, the question divides itself into two parts. The first has to do with the tendency "for the rate of savings to rise with incomes," for "the percentage of income saved" per family to rise "rapidly as income increases." It is in general conceded that such a tendency exists: "For the present," it is said, "we may accept a high positive correlation between family incomes and percentage savings as a fact."²⁴ This situation may indeed be stated even more categorically. That the rate of money savings increases disproportionately the higher the income, is a matter of rather common knowledge.

The other part of the savings-trend analysis has to do with Moulton's conclusion "that the proportion of national income saved has been rising over the period 1900-1929." Before the appearance of more recent criticism, this conclusion had already been challenged by one of the Brookings authors, Warburton, and also by Johnson and by Crum, the latter finding something like a cyclical savings movement (upward in prosperity and downward in depression)

²³ Cf. Burns, *op. cit.*, pp. 495-500; IEP, pp. 172-175; Wm. H. Lough, *High Level Consumption* (New York, 1935), pp. 15-50. Cf., also, Mordecai Ezekiel, "An Annual Estimate of Savings by Individuals," *Review of Economic Statistics*, Nov., 1937, pp. 178-191.

²⁴ Burns, *op. cit.*, p. 501.

rather than a simple, straight-line upward trend. It may be that better data are needed before this question can be satisfactorily settled. Nevertheless, Moulton's conclusion does not necessarily imply a straight-line upward savings trend (as Johnson appears to assume); and Burns concedes that over the period in question average incomes and the percentage of incomes in the higher income brackets were on the increase. These would, after all, seem to be the significant factors, not the "thrift practices" of the masses.²⁵

At the same time, the answer to the long-term-savings-trend problem may be immaterial to the more important issues covered in the Brookings studies. If it is generally conceded, as it is, that the ratio of money savings to national income rises in periods of prosperity, this generalization is all that appears necessary to bear out the major Brookings contentions on this score, which in the main center upon the boom of the twenties.

SECTION 129. AMERICA'S TENDENCY TO EXPAND CAPITAL

Before turning to the important findings of the third volume of the Brookings series, *The Formation of Capital*, we may ask ourselves: In what position do the first two volumes leave the problems they set out to solve?

The critical summary of this position by Burns will bear significant supplementation.²⁶ As has already been indicated, the first Brookings volume deals primarily with unutilized productive capacity and tends to suggest that, although some idle plant is a common characteristic of American industry, the percentage of idle plant does not

²⁵ *Ibid.*, pp. 500-505; Crum, *op. cit.*; Johnson, *op. cit.*; Warburton, *op. cit.*; cf., also, "Shifts in Income Concentration," *National Bureau of Economic Research Bulletin*, No. 34, Nov. 8, 1929. Regarding thrift practices, much more might be said than Burns indicates. It is hardly conceivable that the objective problem of the trend of savings will ever be solved through an analysis of the highly subjective and variable concept of "thrift," which presumably varies not only with time, as Burns points out, but also with race, amount of income, stability of savings institutions, rising or falling price level, phase of the business cycle, habits of expenditure, and with doubtless other variable factors. But more important than this, if in 1929 the vast majority of the people (80 per cent of them) accounted for only 2 per cent of the nation's savings, the thrift practice of the masses has very little bearing upon the general savings trend, which obviously depends primarily upon the largely automatic accumulations among the upper 10 per cent of the people.

²⁶ Burns, *op. cit.*, pp. 505-506.

increase even when the system is operating at its best, as it was during the boom of the twenties. The second volume adds three additional exploratory findings: (a) that during this decade an increasing portion of aggregate national income went into savings channels; (b) that the bulk of these money savings were made by a small percentage of the people (in the highest income brackets), and (c) that the masses of the people saved extremely little.²⁷

In charging Moulton with "deducing" excess savings from these exploratory findings, and in elaborately schematizing the latter into a "first premise" and a "second premise" for the purpose in hand, Burns may again be overlooking the main problem which the Brookings volumes set out to solve, that is, whether the traditional theory of ever more abundant money savings or the modern view of greater consumptive expenditure gives the more tenable explanation of economic progress.²⁸ In the boom of the twenties there was, it appears, an increase in the rate of money savings but not in excess plant capacity. During this period, therefore, there were evidently *more* money savings as related to capital formation than the traditional theory allowed, and this situation not only tended to discredit the traditional theory but also naturally raised the question as to what happened to the money savings which were in "excess" of those presupposed by that theory. This is all there appears to be to the question of "excess" money savings. No elaborate "deduction" is necessary, provided one tentatively accepts the exploratory findings of the first two Brookings volumes, which, as limited to the decade of the twenties, one can, it would seem, reasonably do.

These exploratory findings simply *raise the question* of "excess savings" as thus defined. They prove nothing about them, which further question is left for the third volume. Were any precise comparison, covering a long period of time, attempted between what Burns didactically designates as his "first premise" and his "second premise," some of the critical considerations he sets forth would certainly have to be taken into account, especially changes in techniques and prices, although both of these may be regarded as having been fairly constant during the decade of the twenties.²⁹ As for the so-called "coverage factors," that is, inventories, public improve-

²⁷ FC, pp. 1-4.

²⁸ Burns, *op. cit.*, pp. 506 ff.

²⁹ *Ibid.*, pp. 507-508.

ments, new residences, and the like, these are not (except for manufacturing inventories) included in private capital goods in the Brookings definitions. Money savings are not "absorbed" in such "coverage factors" for the reason that the latter have already been comprehended under consumptive expenditures and taxes. Had automobiles and other durable consumer goods been included as capital, the volume of monetary savings (spent for such goods) would have been proportionally expanded. Since no precise point-by-point comparison between Burns's so-called "premises" is here involved, detailed critical remarks connected with his attempted correlations appear to be beside the real issue, which comment would seem to apply also to other criticism along similar lines.³⁰

Such remarks, in fact, as it is admitted by Burns, "do not show that excess savings are a myth. If capital formation depends on consumers' expenditures...it is clear that a portion of monetary savings may prove abortive. This is the general drift of Dr. Moulton's theory of capital formation." And this, one might add, would seem to be the real issue.³¹

What the critic finds amiss at this point, it is rather difficult to formulate constructively.³² It appears that there is objection to the Brookings definition of capital, although this is carefully formulated and is consistently employed, throughout the Inquiry, as "material instruments resulting from past production which are used in the processes of further production." Residences and inventories are again mentioned in the criticism, and the inference is repeated that money savings might be absorbed in them, when such items (as indicated above) are previously covered in the Brookings definitions of expenditure, money savings, and capital.³³ Nor is any other definition of capital offered by the critic, except possibly in terms of its possessing "symmetry" and yielding "a series of utilities," which is hardly helpful, since grandmother's spectacles and smelling salts might then be included; and it should of course be appreciated

³⁰ *Ibid.*, p. 516.

³¹ *Ibid.*, p. 509. The phrase "not on savings" is omitted from the foregoing quotation, since it constitutes a gratuitous inference on the part of Burns. The dependence of capital formation upon savings is, in the Brookings hypothesis, simply regarded as indirect, rather than direct, as the traditional theory assumed.

³² *Ibid.*, pp. 509-516.

³³ FC, pp. 7-16, 51-52, 185-186.

that theoretical objection may be offered to any definition of capital, that the concept is very much in need of rigorous formulation, and that systematic contributions in this direction (which the Brookings study undoubtedly makes) should be welcomed.³⁴

The objection to Moulton's analysis of our commercial banking system and of its relation to the problem in hand seems equally dubious. How changes in the interest rate, without credit extensions, could overcome the dilemma of a "concurrent expansion in the output of the consumers' and capital goods industries," is not revealed.³⁵ "A credit expansion does not," of course, "eliminate the necessity of savings." And "the commercial banking system is not the chief explanation of the long run growth of capital." Again, to contend, as the Brookings Inquiry does, that the demand for capital goods is "derived from the demand for consumers' goods" and that both can be increased more or less simultaneously because of the "expansive quality of our commercial banking credit system" would not appear to deny that there are often intervening technical lags or speculative leads—whether because of "changes in the forms of efforts and activities," shifts in demand, changing interest rates, or other factors—nor would it seem to imply that consumption and capital formation advance or grow at *precisely* the same rate.³⁶ And the contingency envisaged by Burns, "that any increase in the activity of the capital goods industries will probably soon be reflected in the market for consumers' goods," would appear to depend, according to the Brookings hypothesis, on whether or not sufficient mass purchasing power exists or is being made available. Such a consummation does not necessarily follow; and this seems to be the crux of the Brookings contention here. As Pareto has long since brilliantly demonstrated, functional interdependence or multiple causation is the constructive relationship to be assumed between social phenomena, not the physical-science view of one-sided dependence or "causal priority."³⁷ Regarding this circumstance

³⁴ Cf., also, chaps. xxxi, xxxii, xxxiii, below.

³⁵ Burns, *op. cit.*, pp. 510-512. It should also be noted that interest rates apparently do not control capital formation as has been traditionally assumed. Cf., chaps. xxxi, xxxii, and xxxiii, below.

³⁶ Cf. FC, p. 157; Burns, *op. cit.*, p. 516.

³⁷ *Traité de Sociologie Générale* (2 vols.; Paris, 1917-19), Vol. I, secs. 96 ff., 138, 254 ff., 267; Vol. II, secs. 1731 ff., 1767, 1861, 2023, 2061, 2080, 2088 ff., 2336.

Moulton says: "Indeed, it would seem . . . that the best hope of success in stimulating a strong recovery movement through concerted action would be to operate on both the consumption side and the capital side simultaneously, for each might be expected to reinforce the other."³⁸

The important Brookings finding at this stage of the Inquiry would appear to be that "the formation of capital is accompanied by a virtually concurrent expansion in the production of consumption goods." And the supporting data, drawn from studies by Frederic C. Mills and Simon Kuznets, far from showing "merely that business cycles exist," would seem to be generally confirmatory of the Brookings contentions.³⁹ What happens in individual industries is, of course, also important, but evidently secondary with respect to this broad finding. As to "which leads the way: consumption or capital formation," the evidence is much less adequate. Moulton points out that annual data are often inconclusive in this connection. He says that "without monthly or quarterly indexes it is impossible, in some cases, to determine the order of precedence."⁴⁰ Burns's monthly figures in his Table 4 would seem to show nothing contradictory. It is admitted in a footnote that the figures are of "uncertain meaning when small" (and two thirds of his figures lie between zero and five); furthermore, the "general business" index employed is far from being synonymous with "consumption expenditures." The criticism based on these figures of Burns would therefore seem to be open to serious question.⁴¹

There is thus finally reached the crucial tenth chapter of *The Formation of Capital*, on Savings versus Consumption, the argument of which it is important to have clearly in mind. The purpose of the argument is to relate the analysis of the preceding chapters to "three major tendencies or developments," namely: that, during

³⁸ FC, p. 74.

³⁹ *Ibid.*, pp. 43-48.

⁴⁰ *Ibid.*, p. 66; cf., also, George Soule, "This Recovery," *Harper's Magazine*, March, 1937, pp. 338-340; Mitchell and Burns, "Production during the American Business Cycle of 1927-1933," *National Bureau of Economic Research Bulletin*, No. 61, New York, Nov. 9, 1936.

⁴¹ Cf. Burns, *op. cit.*, pp. 513-515; also, Mitchell, *Business Cycles*, pp. 149-151. Retail sales, which represent consumer buying, apparently constitute only about 5 per cent of the total volume of general business payments, and they may be on the increase for some time before general business gives a definite sign of turning upward.

the boom of the twenties, money savings increased faster than consumptive outlays; that new productive plants failed to grow as fast as money savings; and that the excess money savings not used for new plant and equipment were in the main "dissipated." The first volume of the Brookings series suggested that there was no piling up of excess plant capacity during the prosperous twenties. The second volume tended to show that, during these years, the money savings of individuals in the higher income brackets expanded very rapidly while the consumptive expenditures of the masses lagged. In 1929, for example, of the aggregate money savings of the nation, estimated to have been around twenty billions, about fifteen or sixteen billions, as has been indicated in the preceding chapter, were presumably available for regular investment purposes. Citing Moody and other compilations and drawing important distinctions between "total" financing, "net new" financing (which excludes re-funding issues), and "net productive" financing (which further excludes flotations to cover working capital and to acquire other securities or properties), Moulton shows that only about five billions of the available fifteen or sixteen billions in 1929 were used for net productive financing or new capital formation through regular investment channels. What became of the remaining ten or eleven billions of money savings in 1929, and of lesser amounts of "excess savings" in preceding years, is the question he then raises. Incidentally, the Moody and other figures suggest that while "net new" financing rose from approximately 5.5 billions in 1922 to over eleven billions in 1929, "net productive" financing during these years remained virtually stationary at about the five-billion-dollar investment figure just cited. Another five billions, or thereabouts, were apparently added through direct financing, and we thus arrive at the previously mentioned ten billions or so of new capital formation for 1929.⁴²

"Excess savings" might be invested abroad; they might go to finance government deficits; but during the boom of the twenties they apparently went in the main to bid up the prices of existing stocks and bonds in the United States, which rose to unprecedented figures by 1929. Of course, the colossal annual increases in security prices in the latter twenties represented much more than the "excess

⁴² Cf. FC, pp. 141, 153 n.

savings" and the credit extensions which prompted them, and they were very largely wiped out in the ensuing depression.⁴³ But the actual money savings which were thus "dissipated" in entering into the stock markets were not wiped out. They still presumably exist to some extent, although until recently, after the collapse of 1929, they were probably residing chiefly in the fifty billions or more of partially and totally tax-exempt government securities outstanding.⁴⁴

The latter part of this analysis goes somewhat beyond the Brookings argument, although it would appear to be fairly consistent with it. The chief finding of the Brookings study regarding the "excess savings" which do not go either directly or indirectly into net new productive financing (amounting to ten or eleven billions of dollars in 1929 and to somewhat lesser amounts during the earlier years of the boom of the twenties), is that these "excesses" are essentially nonproductive, sterile, redundant; that they serve mainly to hold back economic progress; and that, if instead of piling up in redundant superabundance, they could be disbursed through consumptive channels, especially by way of enhanced mass purchasing power, economic progress and the welfare of the nation would be constructively served.

So runs the argument of the crucial tenth chapter of the third volume of the Brookings series; and be it noted that the whole of this volume might be regarded, in the main, as a carefully formulated analysis of business and financial processes that bear upon the major theme of the entire study. In fact, it represents the setting up of a preliminary scientific hypothesis, with a clearly delineated understanding that complete statistical demonstration is not yet possible.

Returning now to the criticism of this Brookings analysis, we note first that it seems by some commentators to be thought incredible "that the wholesale swapping of securities during the twenties automatically produced 'savings' for individuals and 'dissipated' them for society." Since such money savings were due to capital gains, they were, of course, highly volatile; but, since income "in

⁴³ Most of the increases were merely "paper" increases, never realized through actual conversions of assets, but they were prompted by the abnormal demand for securities which the "excess" savings made possible.

⁴⁴ FC, pp. 136-154. Cf., also, chap. xxix, n. 35, above.

the form of capital gains is available, like any other income, either for consumptive expenditures or for new investment," it must presumably be taken into account in measuring aggregate income and thus in measuring individual money savings. Not liking this form of income is no reason for refusing to recognize it. It is admittedly nonproductive, and this is apparently what is meant by representing it as a form of social "dissipation." All this Moulton seems to recognize, as he does, also, that there are "counterbalancing losses" in depression years.⁴⁵

With respect to the measurements presented by Moulton, there may be legitimate questions as to whether they are not "heavily influenced by the cyclical factor" and whether they should be "interpreted as a sample of *secular* changes since 1900"—questions, however, not apparently before us here. As indicated, the Brookings analysis was focused primarily on the decade of the twenties. Other objections at this point seem to be due, on the one hand, to an apparent confusion between gross and net figures and, on the other hand, to the seeming preference for an alternative method of measuring capital formation.⁴⁶

The relatively constant Moody figures mentioned by Moulton represent "net productive financing" through investment channels, whereas the expanding figures of Mills and Kuznets represent much more. The Kuznets capital-formation totals cited by Burns are admittedly gross estimates, including such items as public and residential construction, business inventories, goods "destined mainly for households," and other items, most of which are not capital goods at all according to the capital concept employed in the Brookings studies. Furthermore, with all such items deducted, the Kuznets and Mills figures would still seem to cover not only net productive financing through investment channels but also net productive financing through other than investment channels, which latter sum in 1929, as already indicated, was estimated by the Brookings investigators to be around five billion dollars. Adding these additional billions of direct financing to the five billions of security-market

⁴⁵ *Ibid.*, p. 149; Burns, *op. cit.*, p. 517.

⁴⁶ Cf. FC, pp. 142-146; also Simon Kuznets, "Gross Capital Formation, 1919-1933," *National Bureau of Economic Research Bulletin*, No. 52, New York, Nov. 15, 1934.

financing, we get an estimated total of something like ten billion dollars of direct and indirect net new capital formation in 1929, as previously pointed out. With less of direct capital formation for each of the preceding years of the prosperous twenties, we arrive at the "expanding totals" of Mills and Kuznets, ending with around ten billion dollars for 1929. To say that the Moulton and Kuznets "estimates are not fully comparable" would thus seem to be rather misleading. They are apparently not *at all* comparable, even though in the end they may turn out to be reconcilable.⁴⁷

The indicated criticism of the "funds method" of estimating capital formation seems to represent chiefly a continuance of the failure to distinguish clearly at all points of the argument between wealth, income, and credit; between total financing, net new financing, and net productive financing; between direct financing and financing through investment channels; between capital goods and consumption goods; and between savings and expenditure within a given time-period. There certainly "is danger in manipulating" these concepts unless economists consistently adhere to some rigorous and nonduplicative definition for each of them.⁴⁸

SECTION 130. AMERICA'S PATH TO PROGRESS

No serious student can peruse the severe comments of critics of the Brookings Inquiry into income distribution and economic progress without attempting a further examination of its methods and its premises. If the arguments of some of the critics tend at times to become captious, this objection, it would appear, cannot be generally offered with respect to the critics' view of the fourth

⁴⁷ Cf. Burns, *op. cit.*, pp. 518-520; also, recent publications of the National Bureau of Economic Research, by Simon Kuznets, *National Income and Capital Formation* (1937) and *Commodity Flow and Capital Formation* (1938).

Whether or not "an estimate of capital formation made by tracing products is more likely to be successful than one made by tracing funds" still remains an open question. Recent studies seem to throw little light upon it. The main issue here pertains, after all, to what extent money savings are actually converted into new capital goods. The decade of the thirties apparently continues to demonstrate the validity of the Brookings' findings for the last half of the decade of the twenties, namely, that money savings continue to be considerably in excess of the volume of new security issues plus direct capital formation.

⁴⁸ Cf. chaps. xxxi, xxxii, and xxxiii, below, espec. pp. 502-505.

volume of the series, *Income and Economic Progress*. Here the argument deals almost entirely with broad inferences and suppositions, with theoretical analysis; and here the objections of critics would appear to be at their best. Comments on the Brookings "program of price reductions . . . as the chief path to progress" would seem on their face to possess considerable merit.⁴⁹

In this fourth volume, various possible paths to economic progress are examined. The road leading to a greater range of free services for the people, through increased taxation and governmental participation in economic activities, may, it is held by Moulton, have "significant long-run possibilities"; but, he contends, "at the present juncture it is clear that . . . no great expansion along these lines may be expected for some years to come." A second suggested road to progress is by means of increased money wages and profit-sharing; but, here again, it is contended, higher wages through organized labor effort can benefit only a comparatively small group and "cannot be counted on to effect a broad nation-wide increase in the purchasing power of the masses of the people"; while profit-sharing is, "at best, of limited applicability"—it "could be applied only to workers who have comparatively permanent tenure." A third road, however, the price-reduction road to progress, allegedly benefits the entire population, for "a reduction of prices gives to every purchaser a larger return for his money." During the past fifty years, the automatic, competitive forces making for price reductions have been impeded through the growth of monopolies, trade associations, and cartels. What is now needed, it is maintained, is a breaking-down of the impediments to these automatic forces, "a gradual but persistent revamping of price policy so as to pass on the benefits of technological progress and rising productivity to all the population in their role of consumers."⁵⁰

⁴⁹ Cf. Grauer, *op. cit.*; E. Lederer, *op. cit.*; W. Lederer, *op. cit.*; Burns, *op. cit.*, pp. 520-522.

⁵⁰ Cf. IEP, pp. 100-101, 114-116, 122, 134-140, 161; Joseph Mayer, *Practical Experience with Profit Sharing in Industrial Establishments* (Boston, 1920); chaps. xxxi, xxxii, and xxxiii, below; P. T. Ellsworth, "Mr. Keynes on the Rate of Interest and the Marginal Efficiency of Capital," *Journal of Political Economy*, Dec., 1936, pp. 767-790; Alvin H. Hansen, "Mr. Keynes on Underemployment Equilibrium," *Journal of Political Economy*, Oct., 1936, pp. 667-686; F. W. Taussig, "Employment and the

No one could seriously disagree with such a price-reduction program. "The proposal is attractive," says Burns. But, he adds, the difficulties in the way seem enormous, and "Dr. Moulton does not explain how the plan is to be put into effect." To check present monopolistic elements "is to destroy the advantages of large-scale production. To institute governmental control of price policy is to replace one set of price rigidities by another. If there is a clear way out, Dr. Moulton offers no hint." It may not have been the intention in the fourth volume to give this hint; and yet it is well that the extreme difficulties in the way of carrying out a price-reduction program be kept in the foreground of our thinking.⁵¹

But the main issue here presented by the critics is apparently not this; it is, rather, that the price-reduction program would seem to be getting away from the Brookings view of economic progress, that is, from the need for less abundant savings and for a greater flow of funds through consumptive channels. Would price reductions as such bring about such an effect? If, it is argued by the critics, profits are not to be reduced in the Brookings remedial proposal, the excessive savings in the higher income brackets would perforce keep piling up in years of prosperity. "What is important," it is urged, "is that Dr. Moulton's price reduction program, to the extent that it may benefit all consumers and all profit makers, will presumably leave the distribution of incomes virtually unchanged. The allocation of incomes to consumers' goods and savings will therefore not differ perceptibly from what it is now." And with this "curious outcome" Burns leaves his striking analysis.⁵²

To the present commentator, the analysis might at this point be carried somewhat further. The Brookings Inquiry may be held

National Dividend," *Quarterly Journal of Economics*, Nov., 1936, pp. 198-203. Cf., also, Edwin G. Nourse, *Industrial Price Policies and Economic Progress* (Washington, 1937); and Spurgeon Bell, *Productivity, Wages, and National Income* (Washington, 1940).

⁵¹ Cf. IEP, p. 164; Burns, *op. cit.*, pp. 521-522.

⁵² Cf. Burns, *loc. cit.*; IEP, pp. 151-154. It should probably be pointed out here that an increase in aggregate profits may occur in a period of expanding production while the ratio of profits to national income is declining and the ratio of consumptive expenditure is increasing. This is evidently the outcome contemplated in the Brookings price-reduction proposal. Nevertheless, the practical effectiveness of such a program in bringing about any substantial redistribution of income may well be doubted.

by some critics to close on a note of inconsistency, but all the elements of a consistent hypothesis of economic progress would nevertheless seem to be envisaged in these four volumes. The traditional theory has been largely discredited, and the more plausible exploratory view has been advanced of the need for a constructive balance between consumptive expenditure and savings. In addition, a composite remedial program, combining all three suggested "roads to progress," with the emphasis on the first rather than on the last of the three, would seem to fulfil all the conditions of the Brookings hypothesis.

Price reductions, in so far as they can be constructively brought about, benefit everyone, producer and consumer alike, and are presumably best calculated "to increase progressively the total income to be divided," a consideration of first importance.⁵³ Wage increases and a greater degree of profit-sharing serve, to some degree at least, to shift the distribution of income away from the highest income brackets to somewhat lower brackets and thus tend to increase purchasing power and to diminish redundant savings. Higher income and inheritance taxes, with increased participation by the government in economic activities, not only serve to expand the range of free services to the people; more important than this, through social-security payments and especially through sizable old-age pensions, they might add measurably to mass purchasing power and thus keep the consumptive expenditures of the masses and the automatic savings of the upper tenth of the people in more constructive balance.

We may not all agree with the place accorded to price reductions in the Brookings remedial program. Nevertheless, that a composite rather than a single line of progressive economic reform was apparently being contemplated in that program is indicated in the following statement by Moulton: "All the world loves a panacea. But anyone broadly experienced . . . knows that there is no single formula by which desired results can be brought about, just as the natural scientist long ago learned that there is no philosopher's stone and no fountain of youth. Sound proposals for a better system for the distribution of income cannot be over-simplified nor can the

⁵³ Cf. IEP, p. 83; Taussig, *op. cit.*

prospect of general amelioration come through attention to a single phase of the process.

"The ultimate distribution of the national income is brought about through an elaborate process of pricing goods; determining wage and salary payments; disbursing premiums and bonuses; accumulating surplus and determining other aspects of corporate fiscal policy; operating profit-sharing, insurance, and pension schemes, both public and private; and carrying out an elaborate system of taxation and government expenditure."⁵⁴

SECTION 131. SCIENTIFIC METHOD AND THE BROOKINGS INQUIRY

Criticism performs a constructive service in keeping to the fore the limitations of the statistical material used in the Brookings Inquiry, although, as has been pointed out, it does not appear that the specialists participating in that Inquiry were unaware of those limitations. It is contended by some critics that unwarranted inferences are drawn from the scanty data available, but whether this contention appears valid depends upon a broader methodological issue, of which such critics seem to be unaware. At any rate, they generally leave it untouched.

This broader issue has to do with the character of scientific method and with its dual aspects of verified observation and theoretical analysis, whether applied to economic study or to any other field of endeavor.⁵⁵ Certain commentators emphasize the first of these aspects at the expense of the second and thus present an unbalanced criticism. It may be assumed that most of the recent critics of the Brookings Inquiry as well as the authors of its constituent volumes approached the questions at issue from the realistic point of view of modern science and not from the point of view of the medieval scholasticism which has dominated much of our economic thinking in the past. Moulton is rather explicit on this score. Some of the critics are not; they seem at times even to ridicule the idea that there is or has been "traditional" thinking on these questions which is harmful and which should be combatted.⁵⁶ Furthermore, a dogmatic, one-sided emphasis upon the generally admitted need for better facts in an analysis of income and economic progress

⁵⁴ IEP, p. 159.

⁵⁵ Cf. Part I, above.

⁵⁶ Cf. Burns, *op. cit.*, p. 513 n.

tends to leave the impression that the critics' approach is the inductively scientific approach, whereas that of the Brookings Inquiry is not. Exactly the reverse situation is apparently indicated.

As was pointed out in Part I of this volume, facts or verification presents only half the story of the scientific approach to any problem. The formulation of a realistic analytical hypothesis is just as important, and at certain stages of scientific inquiry it may be even more important. It is this situation which certain critics do not seem to appreciate, and it is just here that the Brookings Inquiry appears to have an excellent balance. In the formulation of a scientific hypothesis, of even a preliminary or exploratory one, it is necessary to define with sufficient rigor the important basic concepts. In the present instance, capital, capacity to produce, aggregate and productive income, expenditure, savings, credit, volume of payments, wealth, are among the important concepts involved. The Brookings Inquiry puts forth fairly realistic definitions for most of them. Some critics do not like the Brookings definitions; but, at the same time, they make little if any effort to show that their ideas about these concepts (whatever they may be) are more constructive, and the idea of "thrift," upon which considerable recent emphasis is laid, is left almost completely undefined.⁵⁷

Moulton would appear to have set forth a realistic hypothesis about economic progress, backing it up with what facts are available; and he compares it with the traditional assumption which seems to have little basis in reality but which has nevertheless been perpetuated mainly because of our classical background of medieval dialectic. Not only should the Brookings Inquiry into income and economic progress awaken a greater interest, as Burns rightly concludes, in "the quantitative relations of productive capacity, income, savings, and capital formation," but it should also awaken a greater interest in the need for a rigorous formulation of these and related concepts and, particularly, in the need for a realistic approach to economic progress in place of the traditional approach of classicism.⁵⁸

⁵⁷ *Ibid.*, pp. 497, 501-503. Cf., also, n. 25, above.

⁵⁸ *Ibid.*, p. 523.

CHAPTER XXXI

FULL EMPLOYMENT AND EASY MONEY

THE PRECEDING CHAPTER may, as suggested, be thought of as a demonstration exercise in the practical usefulness, with respect to controversial present-day problems, of the type of analysis into fundamental social-science principles undertaken in the preceding five parts of this volume. The present three chapters taken together will serve as another such demonstration exercise, bearing upon related controversial problems of current interest.

The full employment of all employables must be regarded as an integral part of any constructive program of economic advance. This the authors of the Brookings Inquiry into income and economic progress seem to appreciate. They suggest, in fact, among other things, how full employment in the United States might have been achieved in 1929 through a fifteen-billion-dollar increase in consumer demand.¹

There are other economists, however, who believe that easy money or a low rate of interest on long-term investments is the answer to the quest for full employment, in that low interest is supposed more or less automatically to regulate savings and expand new capital-formation and thus employment, assumptions which the chief author of the Brookings Inquiry emphatically denies in a printed reply to one of his critics. In this connection Harold G. Moulton says, referring to the business upturn of the twenties: "Our point of view with reference to the interest factor may be briefly stated as follows: If the interest rate did in fact automatically regulate the savings process, then no maladjustment between the volume of money savings entering investment channels and the flow of new security issues for purposes of capital expansion would ever occur; since the facts clearly show that there was a wide discrepancy, the

¹ Cf. Nourse and Associates, *America's Capacity to Produce*. pp. 429-430; also chap. xxix, above, and chap. xxxiii, pp. 535-536, below.

interest rate was evidently not an effective regulator.”²

Were this the whole of the issue between the facts and the traditional theory of interest, the matter might well rest there. But the belief in the possibility of increased employment through easy money is so widespread, and governments (as in the United States and Great Britain) have recently given so much attention to it in the formulation of policy, that a more detailed examination of the question seems called for, than the authors of the Brookings Inquiry thought it desirable to undertake. This is all the more clearly indicated since the appearance of John M. Keynes’s *General Theory of Employment, Interest, and Money*, through which, as is his wont, he has aroused considerable current interest in the subject.

SECTION 132. A FOCUSING OF CURRENT INTEREST

There has probably been no more prominent representative of the classical tradition as it projects itself into contemporary life, than John M. Keynes. He has taught the traditional doctrines in Cambridge University for more than a score of years. He has written extensively in the classical vein, although, like John Stuart Mill, with large touches of realism that disturb his classical colleagues. His books have been extremely popular, one of them, *The Economic Consequences of the Peace*, selling into the eighty thousands.

In 1919, after the disillusionment of Versailles, where he was one of the principal economic representatives of the British Government in the peace overtures, Keynes shook British thought out of its usual complacency with his sensational *Economic Consequences*. In 1930 appeared his two-volume *Treatise on Money*, which stirred up considerable further speculation. And now his *General Theory of Employment, Interest, and Money* bids fair to outdo all the rest of his writings in interest and influence. Though the reactions are by no means all favorable, the effect of his latest ideas upon economic thinking and upon governmental policy has already been considerable.

Among his colleagues, whom he here primarily addresses, there is general agreement on apparently only two points, namely, that the

² “Capital Formation and Inequality: In Reply,” *American Economic Review*, Dec., 1936, p. 619.

book is extremely difficult to read and appraise, despite its excellent stylistic qualities, and that the book is important. Rowse is inclined to regard it as marking "a revolution in economic thought." Elliston views it as "a bombshell thrown into the camp of the orthodox economists." Ashton speaks of it as "profoundly disturbing" and its arguments and conclusions as "diametrically opposed to the whole trend of political economy from the time of Ricardo to the present day." Mussey speaks of the book as a "brave and honest" one, "written by a man whose thought and study have led him far from the easy and comfortable beliefs in which he was brought up." Hardy sees in it a sharp "break with the accepted theory."³

Other prominent commentators, however, are not so sure that such a break has occurred, even though they regard the book as departing somewhat from orthodoxy. Coe contents himself with speaking of Keynes as "the most unorthodox of orthodox economists." Henderson apparently agrees with this and remonstrates that "here is the most famous of living economists claiming to have demolished a large part of the classical theory of economics which he has himself taught for most of his life." Hansen regards the book as more a "symptom of economic trends than a foundation stone upon which a science can be built" and its author as "one of those rare and delightful spirits who finds it quite impossible to live happily for long in contemplation of old ideas, even though those ideas are his own." Viner waggishly remarks that "the indebtedness of economists to Mr. Keynes has been greatly increased by this latest addition to his series of brilliant, original and provocative books, whose contribution to our enlightenment will prove, I am sure, to have been even greater in the long than in the short run."⁴ Franklin

³ Cf. John M. Keynes, *General Theory of Employment, Interest, and Money*, herein-after cited as *General Theory*; A. L. Rowse, "Mr. Keynes and the Labour Movement," *Nineteenth Century*, Sept., 1936, p. 323; H. B. Elliston, "Keynes Bridges an Economic Gulf," *Christian Science Monitor*, April 8, 1936, pp. 3, 13; T. S. Ashton, "Mr. Keynes Bombs a Citadel," *Manchester Guardian*, Feb. 24, 1936, p. 5; Henry R. Mussey, "A Landmark in Economics," *New York Herald-Tribune, Books*, April 12, 1936, p. 4; Charles O. Hardy, "General Theory of Employment Interest and Money" (a review), *American Economic Review*, Sept., 1936, p. 490.

⁴ Cf. Virginius Coe, "Half Way House," *Canadian Forum*, May, 1936, p. 26; H. D. Henderson, "Mr. Keynes's Attack on Economics," *The Spectator*, Feb. 14, 1936, p. 263; Alvin H. Hansen, "Mr. Keynes on Underemployment Equilibrium," *Journal of*

hopes that Keynes will feel "called upon to follow up this book with another which will take due account of the truth contained in old Hesiod's saying about the folly of those who know not how much more the half is than the whole." Taylor thinks that another major utterance is to be anticipated and that the present volume is merely a step "toward the positive position Keynes will finally come to occupy in the history of economic theory."⁵

Keynes himself states that "the composition of this book has been for the author a long struggle of escape . . . from habitual modes of thought and expression," and he apparently hopes through it to bring to an issue "the deep divergencies of opinion between fellow economists which have for the time being almost destroyed the practical influence of economic theory, and will, until they are resolved, continue to do so."⁶

Possibly, as some of his critics contend, Keynes has by no means "escaped," but has, in fact, overestimated both the extent of his defection from classical tradition and the power of his present book to resolve the current divergencies of economic opinion. Possibly this is only the halfway stage in his thinking and a still more important analysis is to be expected. At any rate, as Ashton puts it, one of the outstanding knights of the citadel of classical doctrine has undertaken to bombard it, whether or not he has actually penetrated the stronghold. Even the most outspoken of his critics concede this much. Writes Schumpeter:

A book by Mr. Keynes on fundamental questions which are right at the heart of the practical discussions of the day is no doubt an event. Those who had the opportunity to witness the expectations of the best of our students, the impatience they displayed at the delay in getting hold of their copies, the eagerness with which they devoured them, and the interest manifested by all sectors of Anglo-American communities that are up to this kind of reading (and some that are not) must first of all congratulate the author on a signal personal success, a success not in the least smaller in the cases of negative reaction than in those in which the book elicited fervent

Political Economy, Oct., 1936, pp. 669, 686; Jacob Viner, "Mr. Keynes on the Causes of Unemployment," *Quarterly Journal of Economics*, Nov., 1936, p. 147.

⁵ Cf. Fabian Franklin, "Keynes's Economics," *Saturday Review*, April 4, 1936, p. 33; Horace Taylor, "Mr. Keynes's General Theory," *New Republic*, April 29, 1936, p. 349.

⁶ *General Theory*, pp. vi, viii.

admiration. The unfavorable reviews in a sense but testify to the reality of that success, and I for one, being about to write another of those unfavorable reviews, heartily rejoice in this implication and wish it to be understood that what I am going to say is, in its own unconventional way, a tribute to one of the most brilliant men who ever bent their energies to economic problems.... The book will undoubtedly dominate talk and thought for some time.⁷

SECTION 133. KEYNES'S CENTRAL ARGUMENT AND ITS RECEPTION

In Keynes's formulation and elaboration of his central argument and in its reception by his colleagues are found many of the difficulties with classical and neoclassical doctrine which have in recent years been encountered elsewhere and which have been discussed in detail in earlier parts of this work.⁸ There is also encountered an additional difficulty, which is somewhat diverting, namely, that outstanding economists in the United States and Great Britain seem at present to be at rather complete odds as to just what "classical" or "traditional" economic theory actually is. Schumpeter mentions a student who calls "orthodox" anything he does not like.⁹ There is perhaps an even stronger tendency among "orthodox" economists themselves to be touchy on the subject in the opposite direction. These days anything in traditional doctrine that is subjected to searching criticism and is made to appear ridiculous tends to be disowned forthwith by a "classicist" as a caricature or as something he has never heard of before. Such a reaction is of course understandable, but the irritability exhibited by some of Keynes's critics would seem to indicate that "orthodoxy" or "classicism" or "traditionalism," though still strongly entrenched, is finally very much on the defensive.

It is not the purpose of the present analysis to add just one more commentary to the excellent reviews of Keynes's book that have already appeared and that continue to appear. A brief outline of his central position will first be given substantially in his own words, then digests of a number of critical interpretations will be presented, and finally some of the important difficulties exhibited in these

⁷ "General Theory of Employment Interest and Money" (a review), *Journal American Statistical Association*, Dec., 1936, pp. 791-792.

⁸ Cf. Parts II and III, above.

⁹ *Op. cit.*, p. 793 n.

appraisals will be further analyzed in the light of still more fundamental considerations.¹⁰

In Chapter III of his book, Keynes presents "a brief summary of the theory of employment to be worked out in the course of the following chapters," which summary is given below, the omitted words being unessential (except toward the end of the first paragraph) and the additions (in brackets) being supplied by the present writer in the interests of clarity (the capitalization is mine):

The outline of our theory can be expressed as follows. When employment increases, aggregate... income is increased. The psychology of the community is such that when aggregate... income is increased aggregate consumption is increased, but not by so much as income. Hence employers would make a loss if the whole of the increased employment were to be devoted to satisfying the increased demand for immediate consumption. Thus, to justify any given amount of employment there must be an amount of current investment [in new capital goods] sufficient to absorb the excess of total output over what the community... consume[s] when employment is at a given level. For unless there is this amount of investment [in new capital goods] the receipts of the entrepreneurs will be less than is required to induce them to offer the given amount of employment. It follows, therefore, that... the equilibrium level of employment, i.e. the level at which there is no inducement to employers as a whole either to expand or to contract employment, will depend on... [a proper balance between consumption and productive investment]. The amount of current investment [in new capital goods] will depend... on what we shall call the inducement to invest [in new capital goods]; and the inducement to invest [in new capital goods] will be found to depend on the relation between THE SCHEDULE OF THE MARGINAL EFFICIENCY OF CAPITAL AND THE COMPLEX OF RATES OF INTEREST ON LOANS OF VARIOUS MATURITIES AND RISKS.

Thus, given the propensity to consume and the rate of new investment [in capital goods], there will be only one level of employment consistent with equilibrium; since any other level will lead to inequality between the aggregate supply price of output as a whole and its aggregate demand price. This level cannot be *greater* than full employment.... But there is no reason in general for expecting it to be *equal* to full employment. The effective demand associated with full employment is a special case, only realized when the propensity to consume and the inducement to invest [in new capital goods] stand

¹⁰ Such as were developed in Part I, above.

in a particular relationship to one another. This particular relationship, which corresponds to the assumptions of the classical theory, is in a sense an optimum relationship.¹¹

This idea of the virtue of a "balance" or of an "equilibrium" between consumption and productive investment we have already met with.¹² It is particularly interesting to note here that, according to Keynes, such "balance" or "equilibrium" may occur not only at full employment (the classical assumption) but at less than full employment as well.

For one reason or another Keynes chooses to emphasize the "investment" side of this balance, stressing the efficiency of capital and the interest rate and apparently regarding the consumption side of the balance as more or less fixed.¹³ There are other implications, also, in the foregoing capitalized passage at the end of the first paragraph of the quotation (especially in the light of Keynes's later emphasis upon "liquidity preference"), with which we may disagree. We shall be particularly concerned with the implications later on, so that no additional comment need be made here. All that we wish to emphasize at present about the first paragraph of this quotation is that, calling particular attention to the comment on the omitted phrases in the footnote given below, the conclusion about a "proper balance," added toward the end of the paragraph in brackets by the present writer, seems to follow logically and necessarily from the premises that precede.¹⁴

The omitted sentence in the second paragraph of the quotation is as follows (my italics): "The *real wage* cannot be less than the marginal *disutility* of labor." This statement and others like it that dot nearly every page of the book and permeate much of Keynes's exposition indicate how far he has missed the mark of that

¹¹ *General Theory*, pp. 27-28. Cf., also, his restatement, *ibid.*, chap. 18.

¹² Cf. pp. 430, 461, above; also, *The Formation of Capital*, pp. 136-160.

¹³ Cf. Hansen, *op. cit.*, pp. 675-676.

¹⁴ If an equilibrium level of employment depends on "the amount of current investment, . . . given what we call the community's propensity to consume," then it would also seem that the said equilibrium will depend upon "the community's propensity to consume," given "the amount of current investment." Why Keynes chooses to stress the investment side at the expense of the consumption side of such an equilibrium is intimately connected with his easy money policy, as we shall have occasion to see later on.

"emancipation from preconceived ideas" for which he tells us at the beginning of his book he has been struggling.¹⁵ Nevertheless, here and there, as in the underemployment-equilibrium argument above, Keynes does appear to break away from traditional thinking, even though some of his commentators maintain that, in so far as fundamentals are concerned, he fails in any sense to do so. In reviewing the commentaries on his essential argument, we may well start with this "orthodox" type of appraisal, represented probably at its best by Harrod.

Harrod, a colleague of Keynes, conceives of "traditional theory" in simplest mathematical terms and divides it into general value theory and special departmental theories "formulated to deal with specific problems such as interest":

The general theory consists primarily of a number of functional equations expressing *individual preference schedules* and a number of identities, such as that supply must be equal to demand, and the elucidation of such questions as whether there are as many equations as there are unknowns and whether the solutions are single or multiple. The result of these enquiries should make it clear whether the *equilibrium* of the system as a whole is stable or unstable or undetermined, whether there are alternative positions of equilibrium, etc.¹⁶

The special departmental theories assume temporarily fixed or constant positions for the variables of the general theory and develop short cuts for the solution of particular problems. Taking "Mr. Keynes' theory of interest as the starting point" of his exposition, Harrod lists "the two equations of the traditional theory of interest" as follows:

- (1) The demand equation $y=f(x)$, and
- (2) The supply equation $x=\phi(y)$;

¹⁵ Cf., also, Parts II and III, above.

¹⁶ Cf. R. F. Harrod, "Mr. Keynes and Traditional Theory," *Econometrica*, Jan., 1937, p. 74. The italics, which are mine, call attention to two important assumptions, namely, that the "orthodox" account is built upon the rationalistic-hedonistic-normalistic base criticized in detail by the present writer in Part III of this volume and that the concept "equilibrium" is viewed wholly in terms of whether or not the solutions of the given mathematical equations are single, multiple, or undetermined. Cf., also, J. R. Hicks's comment on "equilibrium," *Economic Journal*, June, 1936, p. 249 n.

where y represents the efficiency of capital or the rate of interest, which at the margin are assumed to be equal, and x represents the amount of invested capital or the amount of savings, which are also assumed to be equivalent.¹⁷ There being two unknowns and two equations, the traditional system is fully determined and is thus in "equilibrium."

Keynes's first equation, Harrod goes on to say, "is substantially the same as that of the traditional analysis, $y=f(x)$." In Keynes's second equation, however, the level of income is brought into the picture, so that the equation becomes

$$(2.1) \quad x=\phi(y, i).$$

This leaves the traditional analysis in an undetermined position (since there are now three unknowns and only two equations) and renders any number of points of "equilibrium" possible. It is here that Keynes adds a third equation

$$(3) \quad y=\omega(m) \text{ or } y=\omega(m, i)$$

"where m is the quantity of money, a known term, depending on banking policy." In Harrod's opinion, there is thus a complete return to determinateness and stable "equilibrium" and a further development of the classical system as such:

We now have three equations to determine the value of the three unknowns, level of income, volume of saving (= volume of investment), and rate of interest (= marginal productivity of capital). . . . The mutual interdependency of the whole system remains, but the short-cuts indispensable to thinking about particular problems, as Mr. Keynes has carved them out, remain also. . . .

It appears to me that the achievement of Mr. Keynes has been to consider certain features of traditional theory which were unsatisfactory, because the problems involved tended to be slurred over, and to reconstruct that theory in a way which resolves the problems. . . .

In my judgment Mr. Keynes has not affected a revolution in fun-

¹⁷ As against such figures as have been presented in the last two chapters of this volume to demonstrate that as a matter of fact savings and new capital formation are not equivalent, Harrod replies: "The commonly accepted interest theory from the time of the early classical writers onward entails that saving is always and necessarily equal to investment" (*op. cit.*, p. 75). And Keynes would appear to agree. This question will be discussed in detail in the next section, below.

damental economic theory but a re-adjustment and a shift of emphasis.¹⁸

In Harrod's view, there is in Keynes's new book no real break with traditionalism, but rather an elaboration and fulfillment. The only real criticism of Keynes's position made by Harrod is that it is "static" rather than "dynamic," these terms being apparently used in the unrealistic sense which has long ago been effectively criticized by Veblen in commenting on J. B. Clark's system, and they thus need not be taken up further here.¹⁹

Accepting the oversimplified and unrealistic assumptions outlined so clearly by Harrod, the student (especially if he is mathematically inclined) will more than likely come to Harrod's conclusions; and in so far as Keynes follows such devices (as he undoubtedly does part of the time in his analysis), the interpretation of Harrod would seem to be sound. But whether this represents the whole or the most important part of Keynes's central argument is another question.

Hicks, in a more recent mathematical commentary on Keynes's book, takes a much broader view than Harrod does, but likewise sees in Keynes's presentation no real break with "classicism." At the same time, he is much less optimistic than Harrod is as to the fruitfulness of such schematic analyses.²⁰

After objecting that Keynes seems to take "as typical of 'classical economics' the later writings of Professor Pigou" and after constructing what he regards as a "typical 'classical' theory, built on an earlier and cruder model" (and thus necessitating various "dangerous" simplifications), Hicks presents three fundamental equations of this "cruder classicism" (to determine three unknowns) with which he contrasts similar constructions in Keynes's system. The three unknowns are Total Income I , Income from Investment I_x , and Interest i ; and the three equations are

$$M = kI, I_x = C(i), \text{ and } I_x = S(i, I),$$

where M (money) and k (a constant) are given and C and S are

¹⁸ *Op. cit.*, pp. 79, 83, 84-85.

¹⁹ Cf. chap. xvi, above.

²⁰ J. R. Hicks, "Mr. Keynes and the 'Classics'; A Suggested Interpretation," *Econometrica*, April, 1937, pp. 147-159.

functional symbols. Keynes's similar constructions Hicks presents as follows: first, Keynes's *special theory*

$$M = L(i), I_x = C(i), I_x = S(I),$$

and, second, Keynes's *general theory*

$$M = L(I, i), I_x = C(i), I_x = S(I),$$

the first and third equations of the Keynes's series differing from the "cruder classical" apparatus as indicated.

Hicks engages in some exceedingly interesting discussion regarding the differences between the equations of "classicism" and of Keynes; pointing out that the change in the third equation is "ultimately insignificant"; that it is the conversion in the first equation which is really important; and that, as represented in his general theory, Keynes takes "a big step back to Marshallian orthodoxy, and his theory becomes hard to distinguish from the revised and qualified Marshallian theories, which . . . are not new."²¹

Finally, Hicks reinserts "the missing i in the third equation," adds I in the second, and invents "a little apparatus" of his own, to illustrate (on the score of "mathematical elegance") how Keynes's general theory can be still further generalized, thus

$$M = L(I, i), I_x = C(I, i), I_x = S(I, i),$$

after which he adds that "Mr. Keynes' theory begins to look very like Wicksell's" and that "this of course is hardly surprising."

In short, Hicks (like Harrod) does not regard Keynes as having departed in any fundamental sense from "orthodoxy," although the concluding words of Hicks's commentary hold out little hope that such "orthodoxy" can ever be very helpful in the solution of practical problems:

These, then, are a few of the things we can get out of our skeleton apparatus. But even if it may claim to be a slight extension of Mr. Keynes' similar skeleton, it remains a terribly rough and ready sort of affair. In particular, the concept of "Income" is worked mon-

²¹ Cf. *ibid.*, p. 153. In his earlier review (*Economic Journal*, June, 1936, p. 253) Hicks concludes: "The technique of this work is, on the whole, conservative: more conservative than in the *Treatise*. It is the technique of Marshall, but it is applied to problems never tackled by Marshall and his contemporaries."

strously hard, most of our curves are not really determinate unless something is said about the distribution of Income as well as its magnitude. Indeed, what they express is something like a relation between the price-system and the system of interest rates; and you cannot get that into a curve. Further, all sorts of questions about depreciation have been neglected; and all sorts of questions about the timing of the processes under consideration.

The *General Theory of Employment* is a useful book; but it is neither the beginning nor the end of Dynamic Economics.²²

The unrealistic character of such skeleton apparatuses, the important things that cannot be gotten into curves, and the neglect of such questions as depreciation, timing, distribution of income, and the like, raise considerable doubts whether "orthodoxy" as defined by Hicks and Harrod can ever help solve the insistent problems of contemporary economic society. And in so far as Keynes utilizes such "orthodox" formulae in his analysis, neither can he, it would seem, furnish any real solution.

This is precisely the point stressed by Schumpeter in his penetrating appraisal. Schumpeter, in fact, feels that Keynes is entirely too "orthodox." The book, he says, is not an advance, but a throw-back. It is thoroughly Ricardian in spirit, intent, and workmanship. "There is the same technique of skirting problems by artificial definitions which, tied up with highly specialized assumptions, produce paradoxical-looking tautologies, and of constructing special cases which in the author's own mind and in his exposition are invested with a treacherous generality."²³

It has long since been demonstrated, Schumpeter goes on to say, "that the old supply and demand apparatus renders its very limited service only if applied to individual commodities . . . and that it either loses or changes its meaning if applied to comprehensive social aggregates." And yet Keynes generalizes this limited apparatus into two "fundamental variables" in terms of Aggregate Demand and Aggregate Supply of output as a whole and "makes them yield a unique 'point of intersection,'" a procedure for which there is little if any justification.

Keynes then proceeds, Schumpeter continues, to develop "the central theme of the book . . . by relating those two fundamental

²² "Mr. Keynes and the 'Classics' . . .," pp. 156, 158-159. ²³ *Op. cit.*, p. 792.

variables not to output but to employment, and not to employment of resources in general but to employment of labor. Mr. Keynes is as careful to point out that number of workmen employed is not proportional to output as Ricardo was to point out that value cannot be proportional to quantity of labor. But exactly as Ricardo reasoned as if it were, so Mr. Keynes assumes that employment of labor is an 'adequate' index of the output resulting from it."²⁴

This assumption of a unique relationship between output and employment makes it necessary to assume also "that all production functions remain invariant," which is contrary to the very essence of the capitalistic process. Such a theory of invariance is "the theory of another world and out of all contact with modern industrial fact, unemployment included. No interpretation of modern vicissitudes, 'poverty in plenty' and the rest, can be derived from it."²⁵

As for savings and investment, Schumpeter says further, Keynes's procedure is "in the worst style of a bygone age. . . . The investment process in his theoretical world has hardly anything to do with the investment process in the actual world."²⁶

Finally, Schumpeter suggests that Keynes's book would be much more helpful if his "propensities" and other artificial abstractions were eliminated. "But then," he adds, "many of the striking inferences would also vanish. The whole vision of the capitalist process would change. Interest would lose the pivotal position which it holds in Mr. Keynes's analysis by virtue of the same technique which made it possible for Ricardo to hold that profits depend upon the price of wheat. And a completely different diagnosis of modern difficulties would follow."²⁷

Nothing could be more devastating than Schumpeter's criticism, despite his laudatory introductory words regarding Keynes himself which we have quoted elsewhere (pp. 467-468).

In sharp contrast with the commentaries of Hicks, Harrod, and Schumpeter, who classify Keynes's new book as essentially orthodox, are the opinions of such critics as Hardy, Landauer, and Knight, though each of these presents a quite different point of view.

Hardy sees in Keynes's analysis a complete break with "accepted theory" in that Keynes denies:

²⁴ *Ibid.*, p. 793.

²⁵ *Ibid.*, p. 794.

²⁶ *Ibid.*

²⁷ *Ibid.*, p. 795.

(a) that the demand price of industrial output as a whole must be equal to its supply price; (b) that the rate of interest is the price which equilibrates the supply of savings with the rate of investment; (c) that unemployment is due merely to frictional disturbances plus unwillingness to work at the prevailing wage rate; (d) that the lowering of money wages tends to increase the volume of employment and of output; (e) the quantity theory of money....

The essential contribution of the book, as the reviewer reads it, is in the greatly increased emphasis which Keynes lays upon liquidity preference as a disturbing element in the equilibrium of the market. But liquidity preference needs much further analysis.²⁸

Carl Landauer contends that Keynes's "liquidity preference" notion of interest is wholly incompatible with his retention of the traditional view that capital declines in efficiency as it increases in amount, that his "unorthodox" attempt to create a "monetary theory of production" has therefore failed, and that "the 'orthodox' theorem which Keynes meant to refute" is completely vindicated.²⁹

Knight seems to feel rather badly regarding Keynes's volume in a number of directions. His sharp criticism is about as hard to appraise as is Keynes's book itself, except the patent fact that Knight disagrees at almost every turn. Some of his strictures are along similar lines to those voiced by Schumpeter, although, being apparently extremely touchy on the subject of what should be regarded as "orthodox," Knight appears rather disinclined to accuse Keynes of any leanings toward "orthodoxy."

Regarding Keynes's use of "wage units" (another of his important abstractions), Frank H. Knight says: "What *can* anyone think he means by a physical unit of labour? Yet from beginning to end Mr. Keynes treats labor as a homogeneous fluid with a uniform price per unit.... Why the national income is measured in wage units is also obscure to me.... Why either money or real wage rates should rise before unemployment is absorbed is not explained and the increase in labour cost under conditions of unemployment is dubious; and granting both, the rise in prices rests on the dogma that they 'must' equal or correspond to wage cost, which is the kind of

²⁸ *Op. cit.*, pp. 490-491, 492.

²⁹ "A Break in Keynes's Theory of Interest," *American Economic Review*, June 1937, pp. 260-266.

reasoning we have been told earlier (p. 12) would have been expected of the classical school."³⁰

Regarding "investment," Knight protests against this term being "so defined as to be necessarily and continuously equal" to savings. Such a procedure "seems calculated to conceal" most obvious and important facts; "but familiar terms and modes of expression seem to be shunned on principle in this book." There is also "no reference to any speculative element in either the holding or the lending of money." And although Keynes goes to great pains to emphasize the equality of "investment" with savings, he is by no means, says Knight, always consistent in his use of the terms.

These are but a few of the many points at which Knight disagrees with Keynes, ending with the declaration: "I must confess that the labour I have spent on *The General Theory of Employment, Interest, and Money* leaves me with a feeling of keen disappointment. The chief value of the book has seemed to lie in the hard labour involved in reading it, which enforces intensive grappling with the problems . . ."³¹

Other economists, however, do see something of constructive value in Keynes's book without finding it necessary to engage in a defense of "orthodoxy" or "classicism" in the process. This is most strikingly illustrated in the commentary of Hansen.³² Hansen's appraisal is in many respects the best that has appeared. It introduces the reader to the relationship between Keynes's present book and his earlier *Treatise on Money* and to criticisms of the latter which would compel a vigorous thinker like Keynes either to abandon or to attempt to reconstruct the foundation of his theoretical beliefs. The new book is such an attempted overhauling.

Ricardo, Hansen points out, had constructed a consistent theory of prices and distribution on the assumption that all productive factors are fully employed and in "equilibrium." Keynes now sees any number of positions of "equilibrium," with *full* employment as only one of them, and this a special case. His new theory purports

³⁰ "Unemployment: And Mr. Keynes's Revolution in Economic Theory," *Canadian Journal of Economics and Political Sciences*, Feb., 1937, pp. 115, 120 n.

³¹ *Ibid.*, pp. 107-108, 111, 116-117, 123.

³² *Op. cit.*, pp. 667-686.

to be a theory of *employment*, whether partial or full, and particularly of partial employment.

Under *full* employment as assumed by classicism, the relation of consumption to productive investment is competitive. If one is increased the other is bound to be diminished. The only problem of classical public policy is therefore the alleged necessity of stimulating habits of saving (= investment), so that the economic system might have an increasingly adequate amount of new capital goods.

Under *partial* employment, the above-mentioned relation is not competitive but complementary. Both capital-goods investment and ultimate consumption may increase together, thus simultaneously increasing employment and income. The question of public policy is as a result quite different. "While a puritanical policy of thrift and saving may be quite appropriate in a society in equilibrium at full employment, prodigality may be the appropriate social virtue in a society in equilibrium at underemployment."³³ The determinants of increased consumption and capital-goods investment under partial employment are not automatic, or, rather, if left to themselves, they merely result in various positions of underemployment equilibrium. They should, therefore, be brought under public control.

What are these determinants as Keynes sees them? They are psychological factors: the "propensity" to consume; the anticipated yield of capital (its "marginal efficiency"); the "liquidity preferences" which allegedly determine interest rates on loans. These propensities or expectations can be strengthened by education and public control, just as classicism endeavored to strengthen habits of thrift and saving in the eighteenth and nineteenth centuries. Classicism, in this connection, assumed an inverse correlation between the interest rate and saving. Neoclassicism raised doubts as to the precise relationship, but in general some dependence is assumed even today.

Keynes suggests that there is (in Great Britain at least) a minimum

³³ *Ibid.*, p. 671. Harold J. Laski, in his recent emphasis upon what he calls the present "contractive" phase of capitalism, takes the classical point of view for granted. He apparently does not realize the potentialities latent in expanding consumer demand. Cf., also, pp. 486-487, below.

rate of interest (2 to 2.5 per cent) below which, for various psychological reasons, the rate will not fall naturally. But saving and investment habits are such that prospective yield on capital may go below this minimum interest rate. What prevents the further fall of the latter? The risks of lending, the possibility of hoarding (liquidity preferences), fears that the interest rate may go still lower. When prospective yield gets below the minimum interest rate, output and employment fall off until the marginal yield rises to 2 or 2.5 per cent, at which point underemployment "equilibrium" is established.

We come here to the question of contemporary public policy. What can be done to push the industrial machine off this underemployment "dead center" and bring about increased employment? Keynes considers several possible measures, among which the following are most important:

(1) *Reduction of wage rates* to reduce employer costs, thus raising the prospective yield on capital and spreading employment. Such a measure, for various reasons, Keynes regards as both impractical and inequitable.

(2) *Taxation to achieve a more equitable distribution of income.* Keynes sees difficulties in such a policy, especially if applied after full employment has been reached. With respect to this contingency, he falls back upon the classical belief that at full employment consumption competes with productive investment and he thus contends that savings would be diminished and economic progress retarded.³⁴

(3) *A controlled rate of interest* kept consistently below anticipated marginal yield on capital until such yield is no greater than replacement cost and the rentier class as such is eliminated. This is the easy money policy favored by Keynes, although he sees certain difficulties here also: one, that full employment might be reached prior to full investment and as a result inflation be brought on; another, that chaotic international monetary conditions might vitiate the effectiveness of the policy. In the end, other measures might be needed as supplementary, especially a social control of investment.

Such in outline is the realistic picture of what is "behind the scenes" of Keynes's analysis, as Hansen sees it. This outline fails to

³⁴ This question is discussed further in the next section below.

do full justice to Hansen's account in that his very significant critical comments have not yet been touched upon, especially those bearing on the same terminological difficulties emphasized by Schumpeter and Knight and on what Hansen designates as the "wholly inadequate" character of Keynes's theory of interest.³⁵ But these difficulties will confront us at still greater length below, and their presentation now would serve chiefly to blur the main picture. We shall also return presently to Hansen's contentions that underemployment "equilibrium" as developed by Keynes is not "stable" unless one assumes conditions of cost rigidities and monopolistic controls, which Keynes does not do. Hansen concludes that whatever full-employment possibilities exist cannot be materialized through policies such as Keynes advocates but, rather, through a continuance of invention and technological improvement—"new discoveries in technique, new ways of utilizing nature's resources, new products, and new industries."³⁶

There are other important interpretations of Keynes's views (by Robertson, Viner, Ellsworth), which will be reviewed presently. At the same time, it will be desirable to pause sufficiently in our running account to examine somewhat more critically the major questions of terminology commented upon in one way or another by most of Keynes's critics.³⁷ We shall begin with the psychological considerations emphasized by Hansen.

³⁵ Hansen, *op. cit.*, pp. 673-676.

³⁶ *Ibid.*, p. 683. In this emphasis upon the importance of technological advance, Hansen follows a number of other writers, notably Spiethoff. Such advance, however, though it makes for greater industrial efficiency and higher standards of living, does not necessarily promote "full" employment. Cf. pp. 534-536, below.

³⁷ Still other appraisals of Keynes's book that might also be consulted are the following: Harold Barger, *Nature*, May 9, 1936, pp. 761 ff.; B. H. Beckhart, *Political Science Quarterly*, Dec., 1936, pp. 600 ff.; W. L. Langer, *Foreign Affairs*, July, 1936, pp. 712 ff.; Emil Lederer, *Social Research*, Nov., 1936, pp. 478-487; A. P. Lerner, *International Labor Review*, Oct., 1936, pp. 435-454; Hans Neisser, *Social Research*, Nov., 1936, pp. 459-478; A. C. Pigou, *Economica*, May, 1936, pp. 115-132; D. T. Smith, *Harvard Business Review*, Autumn, 1936, pp. 129 ff.; H. Townshend, *Economic Journal*, March, 1937, pp. 157-169.

CHAPTER XXXII

FULL EMPLOYMENT AND EASY MONEY—*Continued*

SECTION 134. PSYCHOLOGICAL FACTORS

IN CONTINUING on page after page of his book to pay lip service to a barren utility-disutility dialectic, Keynes leaves much to be desired from the point of view of a constructive modern development of the psychological fundamentals of economic theory. And yet, in emphasizing realistic psychological considerations, such as expectations, anticipations, and fallible human judgments and habits, he marks a distinct advance over ordinary theoretical discussions. In this realistic emphasis, in fact, probably more than in anything else, Keynes tends to upset the traditional applecart, Harrod and Hicks to the contrary notwithstanding, though both the latter regard Keynes's psychological emphasis as important from other points of view.

Among a number of psychological concepts developed by Keynes, such as the Inducement to Invest and the Propensities to Save and to Hoard, the three given greatest emphasis are Expectations, Liquidity Preference, and the Propensity to Consume. Hansen in his review apparently feels that Keynes has located all the determinants of underemployment equilibrium in these psychological factors, but Keynes himself seems to view them somewhat more conservatively, that is, as one among three determinants, the other two being nonpsychological.¹

Regarding Expectations, Hicks says that their use by Keynes is “from the standpoint of pure theory . . . perhaps the most revolutionary thing” about the book.² We shall have occasion later on to

¹ Hansen, *op. cit.*, p. 671; Keynes, *General Theory*, pp. 246-247. But see, also, Hansen's *Full Recovery or Stagnation* (New York, 1938), p. 18.

² J. R. Hicks, “Mr. Keynes' Theory of Employment,” *Economic Journal*, June, 1936, p. 240.

observe certain instructive effects of such use, in examining Keynes's chapter on the marginal efficiency of capital in terms of "prospective yield." In two other interesting chapters, Keynes pursues the subject more generally, developing it in part by way of the traditional short-term-long-term dichotomy and suggesting something (though apparently not nearly enough) of the relation between the expected and the realized.³

In the latter application of Keynes's expectations apparatus D. H. Robertson finds particular difficulty.⁴ In speaking of income or proceeds, Keynes is not always clear, says Robertson, whether he means expected proceeds D or realized proceeds Y. When $D = Z$, the latter representing cost (including profit) under conditions of partial employment, why should businessmen hold back output? Keynes regards this ($D = Z$) as a position of underemployment "equilibrium." Robertson does not see why it should be, especially if business confidence and hope have returned. Keynes's "contrast between the realized and the expected," at times apparently "vital for causal analysis," seems here to have been forgotten. If expected proceeds D are at least equal to cost Z and confidence has returned, it implies that the businessman hopes that D will now *increase* relatively to Z. Thus expansion would ensue. Keynes might reply, of course, that the businessman's hopes in this regard would not be realized unless the aforementioned essential balance between investment and consumption were maintained; the balance failing, D would decrease relatively to Z, and thus the position $D = Z$ would continue to remain as a point of underemployment "equilibrium." But why should the balance fail if confidence has been restored? Keynes provides no satisfactory answer to this question, for he now proceeds to argue in terms of the traditional investment-equals-savings assumption and of the further assumption that the propensity to consume is more or less fixed.

Schumpeter, in a connection similar to the one stressed by Robertson, while agreeing that "the emphasis on *expected* as against

³ *General Theory*, pp. 23-34, 46-51, 147-164; Cf., also, next section, below, for short-term-long-term views.

⁴ Robertson, "Some Notes on Mr. Keynes' General Theory of Employment," *Quarterly Journal of Economics*, Nov., 1936, pp. 168-170.

actual values is in line with modern tendencies," observes that, at the same time, "expectations are not linked by Mr. Keynes to the cyclical situations that give rise to them and hence become independent variables and ultimate determinants of economic action. Such analysis can at best yield purely formal results and never go below the surface. An expectation acquires explanatory value only if we are made to understand *why* people expect *what* they expect. Otherwise expectation is a mere *deus ex machina* that conceals problems instead of solving them."⁵

In a recent reply to Robertson and other critics, Keynes carries his ideas about expectations somewhat further, contrasting them with what he designates as the "false rationalization" of orthodox theory and the "Benthamite calculus," and incidentally illustrating still more fully the points at which his expectations analysis stops short.

After brief reference to the development of classical equilibrium economics and to its assumption that "at any given time facts and expectations . . . [are] given in a definite and calculable form," Keynes goes on to point out that, as a matter of fact, "we have, as a rule, only the vaguest idea of any but the most direct consequences of our acts," that in modern roundabout wealth production future prospects are rather generally unknown, and that classical economic theory needs to be considerably amended to take day-to-day uncertainties into proper account. We assume classically that the present is a serviceable guide to the future; that existing expectations and opinions represent a "*correct* summing up of future prospects"; and that the conventional judgment on business matters is a well-informed judgment. These assumptions being incorrect—business opinion "being based on so flimsy a foundation"—it is small wonder that there are "sudden and violent changes" in the economic system, that high hopes and expectations are replaced without warning by panic fears, and that these after a time give way once more to the optimistic expectations of a "well-panelled Board Room," which in turn are liable again to collapse at any time. Summing

⁵ Schumpeter, *op. cit.*, p. 793 n. Schumpeter also presents similar criticism about Keynes's use of "liquidity preference" and the "propensity to consume" (pp. 794-795).

up his "main reasons for departing" from traditionalism in these respects, Keynes says:

The orthodox theory assumes that we have a knowledge of the future of a kind quite different from that which we actually possess. This false rationalization follows the lines of the Benthamite calculus. The hypothesis of a calculable future leads to a wrong interpretation of the principles of behavior which the need for action compels us to adopt, and to an underestimation of the concealed factors of utter doubt, precariousness, hope and fear.⁶

At this point critical students will raise the question, Why? What are the reasons for our vague knowledge of the economic future? Why should business prospects be so uncertain? Is there not something that can be done about the sudden and violent changes? The past certainly demonstrates that the expectations of businessmen in a period of boom, for example, ultimately end in disappointment. The recognition of this fact is of course important, and classical theory fails in such recognition. But it is surely even more important that we immediately take the next step in our thinking and examine the reasons for the disappointment. Here Keynes's analysis of expectations is incomplete.

Fallible human judgments are always subject to correction as knowledge widens.⁷ What is the kind of knowledge that will enable us to acquire better expectations, anticipations, and prospects in the field of economics? Keynes does not answer this question to our satisfaction, but he at least focuses attention upon it and upon the failure of classical theory even to recognize it. And if his book had done nothing more than to emphasize this consideration, it would have been an eminently worthwhile undertaking.

One evident reason why Keynes's analysis of expectations stops short is that he is looking in another direction for the solution of the problem of underemployment equilibrium. Immediately following the last quotation given above regarding the precariousness of business expectations, he states: "The result has been a mistaken theory of the rate of interest"; which statement carries with it his further idea that an easy money policy to stimulate investment is the answer.

⁶ "The General Theory of Employment," *Quarterly Journal of Economics*, Feb., 1937, pp. 212-215, 222.

⁷ Cf. chap. xxiii, sec. 87, above.

Here the psychological factor of Liquidity Preference becomes important in Keynes's apparatus; but, since this is associated intimately with his discussion of money and interest, its consideration will be deferred until his views on those subjects are examined in detail.

The third of Keynes's most important psychological factors is the Propensity to Consume; and this is developed in the book, as Schumpeter expresses it, in the "worst style of a by-gone age." We have already met with the concept of *capacity* to consume, and Marshall spoke of the *power* to consume, either of which would seem to designate the realistic idea underneath much better than *propensity* with its rationalistic and purely quantitative connotations.⁸

Keynes devotes three chapters to this schematized "propensity" and develops some interesting facts regarding it, chief among them the observation that as income increases, consumption also increases, but in lesser degree. He lists a number of factors, subjective and objective, affecting such a "propensity," but on the whole he regards it as more or less fixed, especially in the short run, designating it as a "permanent habit" and as a "fairly stable function," the ratio of consumption to income.⁹

Here again, however, as Hansen observes, Keynes exhibits the same ambiguity between the expected and the realized which Robertson and Schumpeter mention in other connections. Representing the "propensity function" by P, consumption by C, income by Y, and the past, present, and future by the subscripts 0, 1, and 2 re-

spectively, then the meaning given to Keynes's formula $P = \frac{C}{Y}$

will depend upon whether he has in mind $P = \frac{C_2}{Y_2}$ which might be

regarded as fairly stable but for the most part unrealistic, or $P = \frac{C_1}{Y_0}$

⁸ Cf. Robertson, *op. cit.*, p. 185; Alfred Marshall, *Principles of Economics* (8th ed.), p. 224; Keynes, *General Theory*, pp. 65, 89-131; also, chap. xxix, sec. 124, above.

⁹ Cf. Viner, *op. cit.*, pp. 163-167; Robertson, *op. cit.*, pp. 171-175; Hansen, *op. cit.*, pp. 675-676.

which realistic relation between present consumption and the income of the immediately preceding period obviously fluctuates widely between times of prosperity-optimism and times of depression-pessimism. As Hansen says, "These difficulties and obscurities arise from Keynes' failure to give exact definitions and to employ them consistently."¹⁰

Hansen's observation is particularly pertinent in this connection, for, despite the space devoted by Keynes to the consumption function, he is obviously concerned with soft-pedaling it in the consumption-investment balance. The propensity concept and the expected-realized obscurity (in which he clothes it) seem excellently designed to do just that. If the consumption function is not essentially constant but on the contrary shows considerable variation, we have an entirely different situation to face, with respect to Keynes's central argument, than the one he presents. His central argument, to repeat, is that, in consumption-investment positions of underemployment equilibrium, it is the investment and not the consumption side which a constructive public policy (that is, easy money) can hope to improve. Classical full-employment theory likewise stresses the investment side. The Brookings Inquiry stresses both sides and, in addition, draws an important distinction between productive and unproductive investment.

Consumption is the important neglected factor in Keynes's apparatus, whether viewed as propensity, power, or capacity. That its ratio to income is by no means fixed is admitted by Keynes himself when he states that as income rises consumption rises also, but in lesser degree. When he makes this observation, furthermore, he apparently has in mind aggregate consumption and income only, for he completely fails to examine the important further question of the bearing of changes in the *distribution* of income upon consumption habits.

The bulk of income recipients at the lower end of the income scale in any modern industrial nation consume only what their income allows them to consume, particularly to cover basic needs in food, shelter, clothing, and sundries; the upper brackets (5 per cent or so of the people) probably consume all they are capable of consuming,

¹⁰ *Op. cit.*, p. 676.

considering limitations of time and human capacity; and the rest of the consumers range in between these two extremes. Such a distribution does not mean that the *capacity* of the masses for consumption has reached a limit or is stable, which situation pertains wholly (if at all) to the uppermost income groups. The consumption of the masses can evidently be expanded considerably.

Let us assume, for example, that the upper tenth of the people of the United States in 1929 consumed at "full capacity" that year. Since human beings in a democracy may be thought of, by and large, as more or less alike in consumption needs and desires, multiplying the consumption expenditures of the upper tenth by ten provides a possible "maximum" for all the people of the United States in 1929, that is, $26\frac{1}{4}$ billions times ten, or $262\frac{1}{2}$ billions of dollars of potential consumption capacity. That year the total actual consumption expenditure was around 75 billions, which, compared with $262\frac{1}{2}$ billions, suggests a considerable flexibility in capacity. The problem of consumption quite evidently does not rest in any fixed or limited capacity but rather in an insufficiency of the productive mechanism in turning out and in effectively distributing what the people always stand ready to consume. Even in the best year of American business history (in 1929), the total aggregate income was only 95 billions compared with the imputed consumptive capacity of $262\frac{1}{2}$ billions.¹¹

We might stop here to examine the further effect of Keynes's omissions and confusions (with respect to the consumption function) upon his central argument, but this effect will stand out even more clearly after we examine certain other terminological difficulties.

SECTION 135. EQUILIBRIUM ECONOMICS

Hansen expresses doubt, despite Keynes's closely knit arguments, as to whether the type of underemployment equilibrium developed is of a stable variety and fits actual industrial conditions. The "unorthodox" student may well share this doubt, which may, however, be legitimately felt with respect to any form of equilibrium economics as measured against actual conditions, since such a system is always an artificial schematization, a simplified apparatus from which most

¹¹ Cf. chap. xxix, sec. 120, above.

of the complicating factors of real life have been eliminated.

The question as to why we may have special doubts about the efficacy of a mathematical or mechanical apparatus to reflect typical economic conditions, and particularly an apparatus from which the facts of business cycles have been abstracted, has already been commented upon. Such doubts as those expressed by Hicks and Schumpeter and quoted above are of especial relevance here. In general, Keynes's system of underemployment equilibrium is an abstract mathematical scheme and thus contains all the shortcomings of this type of apparatus. As Knight sums up Keynes's system: "It claims to be itself a theory of stable equilibrium, like the conventional systems, in being free from cycles, but different in that instead of full employment a large amount of unemployment, involuntary and not due to friction, is characteristic of the equilibrium position."¹²

The difficulties inherent in general equilibrium economics are in fact even greater than those thus suggested. It is becoming increasingly harder these days to determine what a given equilibrium apparatus implies in the minds of its advocates, since realistic implications, which were omitted in the traditional form, are now more and more squeezed into it. This is not the place to attempt any comprehensive analysis of these difficulties. Only a few major illustrations of special points of view, as bearing on the subject in hand, can be presented here.

First is the view of the mathematical economists, as in the interpretation of Harrod already quoted. Here "equilibrium" apparently means primarily "whether there are as many equations as there are unknowns and whether the solutions are single or multiple." In short, the more a system of equations is *determined* mathematically, the more is it in "equilibrium." Even thus limited, there is not always complete precision in the mathematical statement, for a system of equations may be generally determined in the sense just indicated, while the individual equations themselves are left rather vague. As previously quoted from Hicks in connection with Keynes's argument regarding the interest function: "Most of our curves are not really determinate unless something is said about

¹² *Op. cit.*, p. 100.

the distribution of Income as well as its magnitude."¹³ The mathematical or relational view of equilibrium may be regarded as representing an instantaneous cross-sectional picture, "even in the real world in 'disequilibrium,'" and also (possibly) as representing the "continuously fluctuating inter-relationship of temporal processes," provided other things are held rigorously "equal" and the schematic assumptions do not go beyond economic rationality, scarcity, a downward sloping demand function, and an upward sloping supply function—assumptions that are to a large extent unrealistic.¹⁴

Second is the view of equilibrium in terms of physical mechanics. Here several complicating factors need to be taken into account; namely, whether the system is being regarded as stable or unstable, whether the equilibrium is of a short- or long-term variety, whether it is fixed or moving, and whether attempts are being made to squeeze the cyclical pattern into the equilibrium apparatus.

Usually the mechanical conception of economic equilibrium is tied up with the idea of *stability*. It is assumed that there is a fixed or moving point to which the system tends to return whenever outside forces disturb it. There is, however, no such necessary implication in physical-science equilibrium, which is merely a state of balance between opposing forces and may be unstable (as in a spinning top), neutral (after the top has fallen but can still roll from side to side), or stable (the top lying on its flat end or head). Many physical systems exhibit varying degrees of stability and instability at the same time. A pendulum is stable at its fixed point but unstable otherwise, while swinging back and forth under the forces of gravity and momentum. In a gyroscope, the rotating flywheel is as free or unstable as possible with respect to its plane of rotation, but motion in a plane at right angles to this is peculiarly stable, any outside effort to shift this plane being met with a marked resistance set up by the gyroscopic action as a whole. The solar system is in stable equilibrium as a whole, as it moves as a unit

¹³ "Mr. Keynes and the 'Classics' . . . , " p. 158.

¹⁴ Cf. Hicks, "Mr. Keynes' Theory of Employment," pp. 240-241, 249; Robertson, *op. cit.*, p. 178; Simon Kuznets, "Equilibrium Economics and Business-Cycle Theory," *Quarterly Journal of Economics*, May, 1930, pp. 393-394, 413; R. W. Souter, "Equilibrium Economics and Business-Cycle Theory: A Commentary," *Quarterly Journal of Economics*, Nov., 1930, p. 92.

through space, and unstable within, as its various planetary members move about the sun. In so far as it is proper, therefore, to use the mechanical-equilibrium analogy in economics, there is no inherent reason why the stable variety of equilibrium should be the only one thought of. Mitchell points out: "We have no more warrant for assuming in advance that business processes 'tend' to maintain an equilibrium than to assume that they 'tend' to get out of balance."¹⁵ As with physical systems, economic phenomena may show evidences of both stability and instability at the same time.

In the time-honored short-term-long-term dichotomy, both instability and stability are implicit. At any given unstable moment, so runs the argument, existing functional relations between supply and demand, if allowed to work themselves out in the course of time, will (or would) result in a situation of stable equilibrium at the point of intersection of the supply and demand curves, existing deviations (due to imperfect competition, price "stickiness," and the like) being regarded as negligible in this "long run." If, as generally conceded however, the short-run impediments are always present, such a "long-run" equilibrium is of course never actually realized. Changes in supply and demand are constantly setting new "long-run" equilibrium positions, which are likewise never achieved. Furthermore, how "long" the "run" might be, does not seem to be thought of. This will-o'-the-wisp long-run dialectic is of course a far cry from the idea, with which it is often confused, that for the most part the economic system is *actually* in a position of stable equilibrium.¹⁶

As great a difficulty as any, in the mechanical-equilibrium concept in economics, has to do with determining whether one is dealing with a fixed or moving equilibrium. On the other hand is the idea, just mentioned, that the economic system is and always has been essentially stable. On the other hand is the conception that it will

¹⁵ *Business Cycles* (New York, 1928), p. 187.

¹⁶ Cf. Marshall, *Principles*, p. 379; Moulton, *The Formation of Capital*, p. 113. Moulton defines the long run as but "the sum of the series of short runs comprised within it." Marshall finds in a "theoretically perfect long period the supposition of a stationary state of industry." Cf., also, Keynes, *General Theory*, pp. 47-51, for short-term vs. long-term expectations.

or can become stable in the long-run stationary state towards which as a whole it is presumed to be moving.

Where attempts are made to amalgamate business-cycle theory with equilibrium economics, it is usually in terms of assuming that there is a neutral position toward which the economic system constantly tends to return and that periods of prosperity and depression are mere deviations from this position.¹⁷ Such an elaboration of the classical apparatus, however, leaves us no longer with equilibrium as the assumed essential characteristic of the system. For the elaborated apparatus, instead of "equilibrium economics," the term "pendulum economics" or "oscillation economics" would be a more accurate designation, since the basic characteristic is thus emphasized, namely, that in such a system the ever-present swings are dominant and the neutral point is merely the center of reference through which the swings pass. A more accurate designation, furthermore, would serve better to focus attention upon one of the major problems with which we are currently faced, the determination of the forces or maladjustments that make the modern economic system an oscillating rather than a stable system and the possibility of mitigating these forces or maladjustments in the interests of a closer approach to actual stability.

A third view of economic equilibrium—the organismic or evolutionary—was developed after certain shortcomings in the mechanistic analogy became rather generally evident. Any mechanism by its very nature cannot grow or progress. Like a given airplane or automobile, it possesses a certain freedom of movement, but the laws of its construction will not allow it to "develop" of its own accord. Hence the recent rise of evolutionary equilibrium. As Marshall observed long since: "The Mecca of the economist lies in economic biology rather than in economic dynamics"; and this observation would seem to be just as pertinent today, even though the "dynamic" and the "evolutionary" continue to be confused.¹⁸

Not only are the "dynamic" and the "evolutionary" often mistaken in current economic thinking, but there is the additional con-

¹⁷ Cf. Kuznets, *op. cit.*, pp. 381-415; Souter, *op. cit.*, pp. 40-93.

¹⁸ Marshall, *Principles*, Preface to 8th ed.; p. xiv; Souter, *op. cit.*, pp. 59-63; John M. Clark, "Statics and Dynamics," *Encyclopedia of the Social Sciences*, XIV, 352-355.

fusion as to whether the imputed "equilibrium" is regarded as already existing in the moving or evolving system or whether it is regarded as a goal to be reached sometime in the future by deliberate human action.¹⁹

The latter conception may be thought of as a fourth view of economic equilibrium. Mitchell speaks of changing economic aggregates that "must be kept in due relation to each other... must be adjusted" by social planning. More recently it has been stated elsewhere that "the conception of a moving general equilibrium offers at least a provisional norm in the light of which we may attack the tasks imposed upon us," that is, by deliberately maintaining "right" proportions in the production of various commodities, by ascertaining "strategic categories" and by establishing between them an ideal moving balance in the economic system.²⁰

The author of the opinions just quoted insists that they represent modern equilibrium economics and that the criticisms of Kuznets on the subject are not well taken. Kuznets in an impressive analysis had stated: "The two ways in which equilibrium economics may be regarded as not in definite contradiction to reality would be either to conceive it as valid only for each instantaneously determined economic state, or to present it as applying to that part of reality which remains after the elimination of secular movements and of cyclical swings." Having stressed the time element, lags and disproportionalities, the "cumulation of random causes," and the "appearance of prolonged oscillations," Kuznets had reduced the application of equilibrium economics to the following terms:

According to this scheme, the economic system is not a stable system which reacts to random changes by cancelling them instantaneously or after a while. It is a loosely bound congeries of social institutions, which in response to random changes goes through a series of fluctuations, a congeries which has to be studied in the main aspects of the distinguishable elements, if any understanding of changes is to be attained.... What is discarded is the notion of a

¹⁹ Cf. Souter, *op. cit.* While stressing real forces that constantly tend to bring the economic system back to equilibrium (pp. 71, 74, 80), he at the same time speaks of a "moving general equilibrium," the achievement of which by human endeavor would be "economically desirable" (p. 78).

²⁰ Cf. Mitchell, *Business Cycles*, p. 188; Souter, *op. cit.*, pp. 85-92.

stable or slowly varying equilibrium and the equational system of solving economic problems. . . . If we are to develop any effective theory of economic change and any complete theory of economic behavior, the practice of treating change as a deviation from an imaginary picture of a rigid equilibrium system must be abandoned.²¹

We have already discussed at length the dangers and shortcomings of mechanistic and organismic (evolutionary) analogies as applied to social phenomena.²² The views of Kuznets about the use of equilibrium economics may seem rather conservative and restricted, since he omits the evolutionary and the normative versions altogether. At the same time, he avoids analogical fallacies and presents a program of constructive research. On the other hand, the views of his opponent are for the most part decidedly naïve; the mechanistic and the organismic conceptions of society are uncritically adopted, and so apparently is the a priori or intuitive approach to economic fundamentals.²³

Kuznets is taken to task for his conservative position, and it is insisted that "modern economic theory employs the concept of general equilibrium (or of 'the stationary state') as a *conceptual instrument* to give clarity and precision to our own understanding of forces actually operative in the real world," which static balance or state is not thought of as something now existent but as something to be developed in the future.²⁴

Here we have the mechanistic or organismic analogy carried to its logical extreme. What is meant by such a future static or stationary state? For an organism or for society, could it mean anything else than stagnation and death? Why posit such a fantastic goal for social achievement?

Because one refuses to subscribe to mechanistic or organismic fallacies, it does not follow that one believes in a "chaotic, lunatic world" or that one is suffering from astigmatic "empirico-realism." The constructive alternative for economic theory is to apply schematicism, mechanism, organicism, and functionalism in so far as these may be legitimately applied but to emphasize the primary driving forces of personality and social institutions in the ordering

²¹ *Op. cit.*, pp. 413-415.

²² Souter, *op. cit.*, pp. 41-53.

²³ Cf. chaps. xix and xx, above.

²⁴ *Ibid.*, pp. 55-58.

of economic life. The stress should evidently be placed on organization rather than on evolution, organism, or mechanism, the elements to be organized residing in personality and in social institutions, not in species, cells, or atoms as such. The normative view of equilibrium economics, the "conception of a moving general equilibrium" between strategic economic categories—of various stable moving balances to be achieved by deliberate human planning—thus appears to be the most promising view of equilibrium for constructive economic theory, in which the other views mentioned find a place but one of relatively subordinate importance.²⁵

We may now return to Keynes's use of the equilibrium apparatus and present certain critical comments thereon, most of the various views mentioned above being apparently implicit at one time or another in his argument.²⁶

In so far as Keynes's exposition reflects merely the mathematical approach developed by Harrod and Hicks, his equilibrium views must be regarded in terms of determinateness only. And from this angle Harrod's "statics" criticism takes on meaning, for thus construed Keynes's scheme is an attempt to present a cross-sectional view of the economic system, an instantaneous photograph, from which temporal, cyclical, and secular factors are omitted.²⁷

But Keynes also treats of the economic system in flux. He has in mind shifting as well as stationary equilibria and speaks of any number of positions of underemployment balance. At one point he even talks about "a cyclical movement" around an equilibrium position.²⁸

Whether any of the equilibrium positions described by Keynes are stable is probably not so important, in the light of our preceding discussion, as whether they are obstructive or constructive. Hansen pictures certain conditions leading to an obstructive dead-center balance, that is "restrictive institutional factors and rigidities," such as cost inflexibilities and monopolistic control of supplies, and he seems to suggest that Keynes's argument proceeds quite apart from such restrictions. But how about Keynes's psychological

²⁵ Cf. chaps. ii, iii, iv and xx, sec. 79A, above.

²⁶ Cf. Keynes, *General Theory*, pp. 27-28, 65, 180, 200-201, 217-220, 227, 242-244, 249, 270, 283, 289; also, Hansen, *op. cit.*, pp. 684-686.

²⁷ Cf. Harrod, *op. cit.*, p. 86; also, Robertson, *op. cit.*, p. 178.

²⁸ *General Theory*, pp. 200-201, 203, 218.

factors and the 2 per cent that John Bull "cannot stand"—"ultimate causal forces resting in the mores, customs, habits, and behavior pattern of the people"? Are not these merely other forms of "restrictive institutional rigidities"? To the extent that long-standing prejudicial customs and habits, often exceedingly irrational in character, obstruct the movement toward full employment, they would seem to be about as potent in bringing on underemployment positions of obstructive dead-center as are cost rigidities and monopolistic controls.²⁹

Whether Keynes holds an organic view, as well as mechanistic and mathematical views of economic equilibrium, is not entirely clear, but this is also hardly important. It is quite clear that, in addition to other views, he holds and emphasizes the normative conception and that his central argument implies both stable and unstable positions of equilibrium at the same time.³⁰ His argument suggests two conditions of balance, one constructive and normative and the other obstructive and mechanical, and a condition of freedom or unbalance. The constructive balance is represented in the implied necessity, through social control, of maintaining a certain moving equilibrium between consumption and productive investment. The obstructive balance is represented in various situations of dead-center underemployment equilibrium. The freedom or unbalance applies to any condition of employment short of full employment. From the point of view of stability or instability, these three conceptions seem to be combined by Keynes somewhat as follows: The deliberate maintenance of a moving balance between consumption and productive investment will prevent haphazard dead-center positions of underemployment equilibrium and will leave the economic system free to move forward constructively towards a final position of full employment. Unless the first condition of a deliberate moving balance is maintained, underemployment equilibrium sets in and the advance toward full employment stops, the industrial machine being in the position of an automobile mired in a mud hole, the machine and its spinning wheels being held in obstructive balance because of the lack of traction in the mud.

²⁹ Cf. Hansen, *op. cit.*, pp. 671, 680; also, Robertson, *op. cit.*, pp. 168-170, 178.

³⁰ *General Theory*, pp. 27-28.

SECTION 136. WAGE-UNITS AND QUANTITY OF EMPLOYMENT

An uncritical use of the term *equilibrium* is bound to lead to confusion and misunderstanding in economic discussion. Keynes generally uses the term uncritically and thus makes it difficult to determine from the immediate context whether he is thinking primarily in the mathematical terms used by Harrod, is still accepting for the most part the mechanistic ideas of the classicists based upon the hedonistic utility-disutility calculus, or has some other view of the economic system primarily in mind. There can be no doubt that he at times disclaims hedonism and at other times blandly accepts its implications.

Next to the difficulties and confusions implied in such ambiguity and in the ambiguities involved in his psychological approach—applying as they do to whatever may be Keynes's view of the economic system as a whole—is the difficulty of coming to grips in any realistic fashion, through Keynes's further apparatus, with the main problem he places before us, namely, the problem of increasing to the fullest extent possible, the number of people employed. For instead of developing this basic idea, Keynes arbitrarily invents two other concepts, *quantity of employment* N and the *wage-unit* W, neither of which (as he defines them), nor their product E, the total wages bill, being proportional to the *number of people employed*.

Keynes describes this procedure as follows:

In dealing with the theory of employment I propose . . . to make use of only two fundamental units of quantity, namely, quantities of money-value and quantities of employment. The first of these is strictly homogeneous, and the second can be made so. . . . The quantity of employment can be sufficiently defined for our purpose by taking an hour's employment of ordinary labour as our unit and weighting an hour's employment of special labour in proportion to its remuneration; *i.e.* an hour of special labour remunerated at double ordinary rates will count as two units. We shall call the unit in which the quantity of employment is measured the labour-unit; and the money-wage of a labour-unit we shall call the wage-unit. Thus, if E is the wages (and salaries) bill, W the wage-unit, and N the quantity of employment, $E = N \times W$.³¹

³¹ *Ibid.*, p. 41.

From this statement it appears that "quantity of employment" N is a factor which, if divided into E , the total wages bill, will give W , the so-called "wage-unit," and that the "wage-unit" W is the money-wage of a "labour-unit," which is defined as an "hour's employment of ordinary labour." Or, to put it the other way around, having chosen as a base an hour of "ordinary labour" (whatever that may be), we ascertain the pay, that is, the hourly rate of this "ordinary labour." Thus we arrive at the "wage-unit" W . Let us say it is fifty cents. Then we take the hourly rates of pay of all employees and multiply them by the hours each works in (say) a year, dividing the sum of all this, which is the total wage bill E , by fifty cents, the wage-unit W . The quotient is the abstract factor N , which Keynes defines as "quantity of employment." In 1929, for example, the American wages bill was around 53 billions of dollars. Dividing this by fifty cents gives us around 106 billions as the "quantity of employment" that year.

Now how is this "quantity of employment" N related to the basic problem of any realistic theory of employment, the number of people employed? It is obviously not equal to or proportional to it or even to the number of hours of employment. Let us take P as the number of people employed. By Keynes's apparatus this is first broken down into the number of hours H each person works in (say) a year, which varies more or less from person to person. Total number of hours of employment is then

$$\Sigma H = \Sigma(H_1 + H_2 + H_3 + \dots + H_p),$$

which summation is not used by Keynes. Instead, he weights each of these hour-quantities with its individual wage rate w , the addition of these products giving E , the total wages bill,

$$E = \Sigma(H_1 w_1 + H_2 w_2 + H_3 w_3 + \dots + H_p w_p),$$

which is finally divided by the arbitrarily chosen wage-unit W to get the arbitrary factor N .³² Thus:

³² The factors W and N are here spoken of as arbitrary, since "ordinary labour," the basis of them both, is not specifically defined by Keynes. Whether he means by "ordinary" the arithmetic mean, median, or modal hourly rate of pay, or some other rate, is not indicated.

$$N = \frac{E}{W} = \frac{\Sigma(H_1w_1 + H_2w_2 + H_3w_3 + \dots + H_p w_p)}{W}, \text{ or}$$

$$N = \Sigma \left(\frac{H_1w_1}{W} + \frac{H_2w_2}{W} + \frac{H_3w_3}{W} + \dots + \frac{H_p w_p}{W} \right).$$

The relation between N and P, or rather the lack of any proportionate relationship between them, is obvious from an examination of this final equation. The right-hand side contains P units, each unit representing an employed person. Increasing or reducing the number of units P will increase or reduce N but in no proportionate sense, for the magnitude of the change will depend on whether the hours worked or the hourly wages paid (of the added or subtracted workers) are small or large. On the other hand, keeping the number of units P constant (and thus the number of people employed), there are three ways of changing N: by changing H, w, or W. In short, the number of persons employed P might remain fixed, while N fluctuated, because of changes in the hours of work, the wages paid, or the "ordinary" wage.

In 1930 in the United States about 49 million people over 10 years of age were employed, P. In 1929 the wages bill E was around 53 billion dollars.³³ The "quantity of employment" N was 106 billions, *ex hypothesi*. If we use P or E in discussing practical problems, we know what we are talking about. Both quantities are important. Nor are they easily confused. But what are we talking about when we say that in 1929 the "quantity of employment" was 106 billions? In ordinary language, "quantity of employment" calls to mind "number of people employed"; it is associated with a pressing economic problem; and we naturally assume a definite correlation between the two concepts N and P. But on examining Keynes's apparatus no such correlation is found to exist. On the other hand, one would not ordinarily suspect that in common termi-

³³ For 1930 employment figures, see *Abstract of the Fifteenth Census of the U. S.* (Washington, D. C., 1933), Table 3, p. 306. For wages bill for 1929, see Leven et al., *America's Capacity to Consume*, p. 155, Table 7.

nology, "quantity of employment" is closely correlated with the total "wages bill." And yet, here, in Keynes's apparatus, is a distinct correlation, that is, N is made definitely proportional to E . Small wonder that Knight queries, "What *can* anyone think he means" by such an unrealistic procedure, and that Schumpeter calls Keynes's theory of employment and invariance of production functions "the theory of another world and out of all contact with modern industrial fact, unemployment included."³⁴

SECTION 137. INCOME, SAVING, AND INVESTMENT

Keynes's critics apparently pay more attention to his ideas about the alleged pivotal position of the interest rate in achieving full employment than they do to his ideas about equilibrium and the quantity of employment and whether such ideas are orthodox or otherwise. To understand Keynes's emphasis upon the rate of interest, we shall take up as preliminary methodological questions, in this and in the following section, his views about income, saving, and investment, and about capital and its marginal efficiency.

Keynes defines income as the value of "current output" or of the "productive activity of the period"; saving as the "excess of income over consumption"; and investment as "that part of current output which is not consumed"; from which it is obvious that he defines saving and investment in identical terms from the outset—"all of which is conformable," as he says, "to the traditional usage of the great majority of economists."³⁵

Here Keynes tumbles completely into the lap of "orthodoxy." In his *Treatise on Money*, divergencies between saving and investment were at the basis of much of his argument. Now he sets out from the start to show that such divergencies cannot exist, even though the critical reader may never be quite sure, as he proceeds, whether this position is consistently maintained.

Any inconsistency here, however, is not found in the foregoing definitions—these are clear enough so far as they go—but rather in the fact that Keynes is not always certain as to whether he is making comparison between current, past, or future saving-invest-

³⁴ Cf. Schumpeter, *op. cit.*, p. 794; Knight, *op. cit.*, p. 115; also, Keynes, *General Theory*, pp. 43-44, 91, 114, 245.

³⁵ *General Theory*, pp. 62-63.

ment situations. Such confusion begins on the very next page following the definitions, where "decisions" to invest are mentioned and it is stated that "thus the act of investment in itself cannot help causing the residual or margin, which we call saving, to increase by a *corresponding amount*" (my italics).³⁶ Here definitions that apparently apply only to an instantaneous cross-sectional picture are confused with causal factors that project the present into the future. And while the implication seems clear enough in this passage that present-investment and saving-of-the-next-period are viewed as identical (which is not implied in the preceding definitions), Keynes is also careful to point out elsewhere that realized investment and prospective saving are *not* necessarily identical.³⁷

Up to this point, the aforementioned confusion between past, present, and future may seem wholly superficial and subject to ready correction by more careful use of terminology. But the difficulty goes much deeper and apparently becomes irreconcilable when Keynes states that debtor-creditor complications and exchanges of old assets "necessarily cancel out."³⁸ What he means by this statement is never made explicit. It is hard to believe that he is here reasoning wholly in terms of double-entry bookkeeping, of there being necessarily two sides to every exchange and a debit for every credit, and nothing further. For there are, in addition, important questions bearing on the price of the old assets (and on the level of the credit-debit "position") at the beginning and end of a given period. Must these always be the same, or is it assumed that they are the same in some mythical "long run," so chosen that the price or credit-debit position at the end of the "run" is exactly equal to what it was at the beginning? Certainly they are not equal (unless accidentally) at the beginning and end of a given calendar or fiscal year, which is the type of period one must deal with in actual life.

What about actual changes in the prices of old securities and in the level of the creditor-debtor position? Surely they must be taken into account in any substantial definition of income, saving, and investment. In short, any realistic definition of these terms must make room for the contingencies of unproductive capital gains or

³⁶ *Ibid.*, p. 64.

³⁷ *Ibid.*, pp. 78, 212; also, Hansen, *op. cit.*, pp. 675-676.

³⁸ *General Theory*, p. 75.

losses, of shifts in prices due to monetary changes, and of net credit creation and cancellation.³⁹

Keynes's definitions, which are wholly in terms of an assumed all-embracing productive activity in business, fail to take these contingencies into account. His definition of productive income thus needs to be supplemented by a definition of aggregate income (including capital gains and losses); and a realistic definition of investment, which divorces that concept from any necessary identity with saving, needs to be developed.⁴⁰

The investment process in Keynes's theoretical world, as Schumpeter puts it, "has hardly anything to do with the investment process in the actual world." Let us list some of the divergencies:

(1) Keynes's detailed analysis of "investment" is apparently confined to "the *purchase* of an asset, old or new," an old asset such as a house, a machine, or a "stock of finished or unfinished goods" (evidently exclusive of changes in price), or a new asset such as new capital equipment *purchased* "out of income."⁴¹

(2) Now, besides the *purchase* of capital assets, some are *created* directly out of income, possibly 25 per cent of aggregate savings being thus converted in the United States in 1929 (that is, without the savings flowing through investment channels). Such direct conversion of income into capital assets, while not intrinsically inconsistent with Keynes's definitions, seems to have been overlooked in his theoretical account.

(3) In real life, moreover, purchases of assets (or their direct creation) are made from money income, whether productively or unproductively acquired, and not merely from productive income alone, as Keynes's definitions imply. The contingencies thus far considered might be comprehended in a more realistic definition of investment than Keynes provides, without there still being any fundamental divergence from "saving."

(4) Besides these contingencies, however, productive investment

³⁹ Cf. Knight, *op. cit.*, pp. 107-108; Hansen, *op. cit.*, pp. 673-675.

⁴⁰ Loans (whether in the form of currency or in the form of bank credit) should not be regarded as additional "income." Though money thus received is spendable and results in current income in so far as it is used in business currently, there would be double counting if the loans as such were regarded as "income."

⁴¹ *General Theory*, pp. 74-75 (my italics).

may and often does occur as the result of loans extended but not liquidated in the current period; and, to the extent that this happens, *current saving* and *current investment* diverge.

(5) In addition, part of *current saving* (as occurred in the United States in the latter twenties) may be absorbed in bidding up the prices of old assets, and this part thus finds no counterpart in productive investment at all. Here is another, and a very important divergence, that is, the use of savings unproductively. Half of aggregate savings in the United States, as previously indicated, were apparently thus unproductively absorbed in 1929.⁴²

(6) Another part of *current savings*, besides those that may be unproductively absorbed, is held by income recipients in liquid form (because of "liquidity preferences").⁴³ Keynes speaks of this part of saving as being "invested" in liquidity, which may be a theoretically defensible extension of the concept, but it certainly stretches the meaning beyond that generally understood in analyzing the creation of new capital goods; and, in terms of additional current employment (the main objective of Keynes's discussion), such extension of the concept "investment" is of course meaningless.

There are thus at least three important contingencies, not provided for in the traditional definitions, which cause divergencies between *current investment* in new capital goods and *current saving*: productive investment through loans extended but not liquidated in the current period; savings held in liquid money form; and savings unproductively absorbed in the speculative bidding up of the prices of old assets. The last-mentioned of these contingencies seems to be the most important factor overlooked by Keynes in his analysis, and apparently also by some of his critics, although the far-reaching effects of the first-mentioned contingency appear likewise to have been largely neglected.⁴⁴

⁴² Cf. chap. xxix, sec. 122, above.

⁴³ Part of this liquid fund represents *past savings* also, that is, that part of money, in the hands of people, representative of actual gold and silver and other durable monetary metals.

⁴⁴ Time lags and leads would also seem to be important in the relation between saving and investment. Cf. Hansen, *op. cit.*, pp. 673-675; P. T. Ellsworth, "Mr. Keynes on the Rate of Interest and the Marginal Efficiency of Capital," *Journal of Political Economy*, Dec., 1936, pp. 775-778; also, discussion on "Saving and Hoard-

On the score of constructive definitions of income, saving, and investment, therefore, it is important to hold in mind the following considerations in examining Keynes's general position. Total aggregate money income, which includes unproductive capital gains or losses, should be used, and not productive income only, as a basis for defining saving. Saving then follows naturally as the difference between total aggregate money income and consumptive expenditure, the line between saving and consumption depending upon our definition of consumption goods and producers' or capital goods. Income recipients utilize their savings in three ways: They may hold them in liquid form; they may create new capital goods with them directly, without any recourse to investment markets; and they may "invest" them, in the ordinary sense of that word, either productively in new capital goods or unproductively in speculative bidding up of prices of old assets. Investment, thus realistically treated, is of course not identical with saving, only the third part of the aforementioned utilization of saving being included in it and both productive and unproductive items being covered. And, besides such utilization of a portion of current saving for current investment, there is always the possibility of additional investment through credit extensions or loans not liquidated in the current period. Out of such realistic considerations, as Schumpeter intimates, we may get a "completely different diagnosis of modern difficulties" from that which Keynes gives us, especially as applied to the problem of full employment—as will become evident shortly.⁴⁵

In concluding this section, it may be well to have before us in

ing," by D. H. Robertson, R. G. Hawtrey, and J. M. Keynes, *Economic Journal*, Sept., 1933, pp. 399-413; Dec., 1933, pp. 699-712.

⁴⁵ As will be indicated in the next section, "investment funds" (including loans as well as actual savings), besides being used for new private capital formation, are also available for the financing of new consumption goods (as dwelling houses and pleasure automobiles), for refunding old debts, for realized capital gains, and for new public capital formation. Cf., also, pp. 457-458, above.

Keynes, in recent discussions, while continuing to identify new capital formation with investment, has come to recognize that money savings do not always immediately result in new plant and equipment. He explains the discrepancy in terms of his "liquidity" or "hoarding" propensity. And yet, such "hoarding," as already indicated, does not necessarily take funds out of circulation: they may still be unproductively invested in the market and thus serve to raise the prices of existing equities and to affect the interest rate.

outline form the outstanding points of similarity and contrast between saving and investment that have been developed:

1. Saving, the difference between aggregate money income and consumptive expenditure, is utilized in three ways:
 - a. Part is held in liquid form.
 - b. Part is utilized for the direct creation of new capital goods, without the use of investment channels.
 - c. Part flows through investment channels, a portion (productively) into new capital goods and a portion (unproductively) into inflated prices for old assets and into other unproductive uses.
2. Investment is not necessarily identical with saving as outlined above. It includes realistically:
 - a. The part of current saving mentioned under 1c, which covers both productive and unproductive use.
 - b. The part under 1b might also be counted by a proper extension of definitions, but the part under 1a should probably be omitted.
 - c. Additional investment to that covered by current saving may occur through credit extensions not liquidated currently.
3. Investment as traditionally defined includes only the productive portion under 2a. It omits the unproductive portion of 2a; it usually omits 2b; and it has no place for 2c.

CHAPTER XXXIII

FULL EMPLOYMENT AND EASY MONEY—*Concluded*

SECTION 138. CAPITAL AND ITS MARGINAL EFFICIENCY

ANOTHER TRADITIONAL assumption of orthodox economics needs to be discussed here. It is well symbolized in the equations set forth by Harrod and Hicks and it centers upon the concept of the marginal productivity of capital. For "productivity," Keynes substitutes the word "efficiency." As Harrod puts it, Keynes undertakes "an exhaustive and interesting analysis of this marginal efficiency and demonstrates that its value depends on entrepreneurial expectations." This, Harrod continues, "constitutes a great improvement in the definition of marginal productivity," is an entirely sound procedure, and can easily be incorporated into traditional theory.¹

As we shall see further presently, any such easy incorporation may well be doubted, for "invariance of productive functions" and a "specific productivity" for capital—other foundation assumptions of orthodox thinking in these connections—will hardly mix with capricious human expectations. But the question we are concerned with here is not human caprice, it is "capital." Where does Keynes's improvement leave us with that much abused concept? Has the latter, in the process, become more precise in meaning or more ambiguous?

When Keynes speaks of capital as such, he clearly means capital goods as contradistinguished from consumer goods, that is, "capital equipment, whether it consists of fixed capital, working capital, or liquid capital," the latter being defined as "the stock of unsold goods." And yet, when he speaks of the "prospective yield" of capital, Keynes does not mean merely the actual current yield of an already existing asset, but he means also a hoped-for future yield in terms of "the rate of return expected to be obtainable on money if

¹ *Op. cit.*, p. 77.

it were invested in a *newly produced asset*." In short, he is here thinking of "capital" in terms of money or funds seeking investment. By the same token, in pricing an asset, he speaks of "capitalizing" it on the basis of its prospective or expected yield, which brings into the picture all the vicissitudes of speculative stock-market anticipations and is a far cry from his classical definitions of income and investment in terms of actual productive factors alone.²

By explicit statement, then, Keynes gives three different meanings to "capital"—capital goods, monetary funds seeking investment, and capitalization—meanings which are generally confused in his exposition and which are all the more perplexing in that they accord so well with variable common usage.

Economists, by and large, may mean "capital goods" when they employ the term "capital." But the use of the term is not always consistent even with them, and the danger of confusion with ordinary practice is always present. When we say that a businessman is in need of "capital," whether for fixed, working, liquid, or other purposes, we generally mean "monetary funds" which can be supplied by banks as loans or which can be secured from investors by the issuance of additional stocks or the flotation of new bonds. Here business demand for "capital" and for "money" comes to the same thing, at least in the beginning.

Certainly such demand is not synonymous with a demand for new capital goods only. On the contrary, total business financing at any given time represents much more than the fixed, working, and liquid capital goods of Keynes's original definition. In the first place, it includes refunding operations as well as "net new" financing. The latter, in the second place, also includes funds used for the purchase of the securities and properties of other existing companies besides the "net productive" financing that goes into "fixed, working, and liquid" capital. And, in the third place, not all working and liquid capital, as defined by Keynes, eventuates ultimately in new factories, machinery, and other producers' goods. Some of it becomes consumers' goods.³ It should also be remembered, as Keynes

² Keynes, *General Theory*, pp. 75, 135-146, 210-221.

³ Cf. Moulton, *The Formation of Capital*, pp. 142-146.

points out, that under partial employment the creation of consumers' and producers' goods may go on concurrently.

Such is the confusion, at the outset, that confronts us between Keynes's view of "capital" as capital goods and as monetary funds.

In the end, moreover, in analyzing the "marginal efficiency" or "prospective yield" of capital, Keynes seems to be interested primarily in neither of these two interpretations but rather in the third, that is, in "capital" in the sense of "capitalization." The idea of "prospective yield" can, of course, be applied to monetary funds seeking investment or to capital assets already in existence, and in much of current discussion, as well as in Keynes's analysis, it is hard to determine which of the two (if either) is meant. There is a grievous dearth of explicit statement and considerable confusion in the matter. But in dealing specifically with Keynes's chapter on the marginal efficiency of capital and noting the factors of hope and anticipation upon which he places particular emphasis, it is hard to escape the conclusion that he wishes the reader to avoid both these views and to focus attention instead upon the third view. The italics in the following quotations from Keynes are his:

The reader should note that the marginal efficiency of capital is here defined in terms of the *expectation* of yield and of the *current* supply price of the capital-asset.... The most important confusion concerning the meaning and significance of the marginal efficiency of capital has ensued on the failure to see that it depends on the *prospective* yield of capital, and not merely on its *current* yield.... [i.e., on the yield for which man "hopes"]..... The mistake of regarding the marginal efficiency of capital primarily in terms of the *current* yield of capital equipment, which would be correct only in the static state where there is no changing future to influence the present, has had the result of breaking the theoretical link between to-day and to-morrow.⁴

At only one point in this chapter does Keynes define the value of an asset in terms of "'capitalizing' its prospective yield."⁵ And yet that is apparently the idea he wishes to emphasize throughout, that is, a "capitalization" not on the basis of *actual* earning power or

⁴ *General Theory*, pp. 136, 141, 144, 145.

⁵ *Ibid.*, p. 137.

yield but on the basis of the yield *hoped for*; in short, on the basis of prices of shares of stock set from day to day by stock-market activity. Existing productive assets are thus being constantly recapitalized, and the marginal efficiency or prospective yield of old and new assets is to be viewed in terms of this "capitalization."

Now if the "marginal efficiency of capital" simply means the "prospective yield" of monetary funds currently demanded for business purposes or of stocks and bonds currently priced through stock-market activity, we have a completely realistic basis for a further discussion of "capital," money, and the rate of interest. But we have also apparently wandered a long way from traditional thinking where "capital" always spelled "capital goods" and the value of capital was invariably construed in terms of its original cost, even in terms of its original "real" cost, in which money, if it entered at all, came in very surreptitiously by a rear entrance.

Out of Keynes's discussion of the marginal efficiency of capital in terms of prospective or hoped-for yield, we are thus led to the concepts of a continual speculative recapitalization of existing assets and of monetary funds currently used in all phases of business finance.

To "investment" more broadly conceived than the traditional idea of productive investment only—more broadly in terms of unproductive items financed out of current savings and of the additional investment that may accrue through credit extensions not liquidated currently—we now add the idea of "business finance" still more broadly conceived, that is, still more broadly in terms of the further inclusion of such items as the financing of consumer-goods production and distribution, the repurchase of already existing securities and properties, and business refunding operations in general. In brief, we are here led directly to the problem of the various uses to which money may be put for all business purposes.

It would seem to be from somewhere within this broad area of general business finance that Keynes selects the materials with which he attempts to construct his monetary theory of interest. In fact, the area in which he appears to do his selecting may be even broader than this, for in his analysis he at times concerns himself not only with business uses of money but with other uses as well.

SECTION 139. MONEY, LIQUIDITY, AND THE RATE OF INTEREST

If Keynes creates confusion by sometimes identifying "capital" with "business finance" and at other times with "capitalization," without any clearcut differentiation, his definitions of money and liquidity, which between them are supposed to determine the rate of interest, are even more perplexing.

Money, Keynes seems on occasion to view rather broadly; at other times, very narrowly. His only explicit statement is given in a footnote, as follows:

We can treat as *money* any command over general purchasing power which the owner has not parted with for a period in excess of three months; . . . or we can substitute for "three months" one month or three days or three hours or any other period; or we can exclude from *money* whatever is not legal tender on the spot. It is often convenient in practice to include in *money* time-deposits with banks and, occasionally, even such instruments as (*e.g.*) treasury bills. As a rule I shall . . . assume that *money* is co-extensive with bank deposits.⁶

Viner feels that, for the comprehensive analysis of interest undertaken by Keynes, the "bank deposits" view of money is not broad enough. He suggests that there might be included "not only demand deposits and time deposits, but also short-term securities, any other assets which are readily marketable without serious risk or loss through depreciation of value, and even the command over credit from banks or others." Such an extension of the concept certainly goes beyond the definition of money as ordinarily conceived, but it is nevertheless well within Keynes's broad phrase, "any command over general purchasing power which the owner has not parted with for a period in excess of three months."⁷

Part of Keynes's discussion—in which he speaks of dividing money into "income-deposits, business-deposits, and savings-deposits"—would seem to indicate that he sometimes adheres to a fairly broad view, though not perhaps in general as broad as that suggested by Viner. At the same time, in other passages Keynes tells us that "money" has an elasticity of production that is zero or near zero.

⁶ *Ibid.*, p. 167 n.

⁷ Viner, *op. cit.*, p. 155.

and here he is apparently limiting the concept to monetary gold and silver (or coined and paper money in the strict sense) and is excluding other assets and credit currency altogether.⁸

Ellsworth feels that Keynes's general view of "money" is somewhat too broad; he would limit the concept to "cash and demand deposits;" but, in any event, Ellsworth does not see how a "theoretically determinate solution" of the rate of interest can be arrived at until money has been "rigorously defined," and this Keynes makes no pretense of doing.⁹ It should also be noted that in his actual discussion Keynes very frequently uses as a synonym for money the even more restricted concept "cash"—all of which makes for a decidedly confused view of "money."¹⁰

The matter becomes even more confusing when we turn to the question of "liquidity." Here Keynes gives us still less to go on, so far as definitions are concerned. In one place he speaks of "liquidity-preference" and the "demand for money" as being "substantially the same." In another connection, he again focuses the issue upon whether the preference of an individual in "holding" his savings is for "the form of immediate, liquid command (*i.e.*, in money or its equivalent)," or whether he is willing to part with "liquidity for a specified period." These are probably his most explicit statements in this connection, and they would lead us to believe that "liquidity" and "money or its equivalent" are regarded as synonymous terms. "The individual can exercise his choice between liquidity and illiquidity," he says, that is, between money or its equivalent on the one hand and an instrument of indebtedness bearing interest on the other, and there this particular question would logically seem to end.¹¹

But it does not end there in Keynes's argument. First, there has now been added to his already vague definition of money, the conception of "its equivalent," a rather disconcerting alternative under the circumstances. Second, "liquidity" is not really, for a good part of the discussion, an absolutistic entity with "illiquidity" as its antithesis but a relative concept possessing degrees. What one suspects Keynes has in mind most of the time as the "equivalent"

⁸ *General Theory*, pp. 229-231.

⁹ Ellsworth, *op. cit.*, p. 775 n.

¹⁰ *General Theory*, pp. 167-174, 194-199, 205-207.

¹¹ *Ibid.*, pp. 166-167, 194.

of money when he discusses the interest rate is "loanable funds," which provides still another definition of the already chameleonic concept "money" but a much more plausible one as we shall observe presently. As for relative liquidities, Keynes states definitely, in reply to a criticism by Viner (to be referred to further shortly), that "different types of assets satisfy the desire for liquidity in different degrees."¹² Keynes apparently does not realize what this admission of relativity in liquidity does to his special monetary theory of interest. As we shall see later, it probably destroys it altogether.

At the same time, so far as concerns us here, making liquidity a matter of degree conflicts with Keynes's earlier idea (referred to above) that liquidity-preference and the demand for money come to substantially the same thing—unless we view "money" in the very broad terms suggested by Viner and by Keynes himself in his phrase, "any command over general purchasing power which the owner has not parted with" for more than a few days or weeks or months. Certainly short-term securities and any other assets readily marketable partake of degrees of liquidity, and through the facilities of organized exchanges such liquidity is extended to the most important long-term securities as well. All these possess degrees of liquidity for which "preference" is supposed to be strongly exercised. Must they, also, in Keynes's theory of interest, be regarded as "money"? No real answer to this question is ever given by Keynes.

The reason it seems so necessary to have an adequate conception of what Keynes means by money and liquidity is found in his definition of the interest rate, for he states: "The rate of interest at any time, being the reward for parting with liquidity, is a measure of the unwillingness of those who possess money to part with their liquid control over it.... If this explanation is correct, the quantity of money is the other factor, which, in conjunction with liquidity-preference, determines the actual rate of interest in given circumstances."¹³

In thus attempting to define interest in purely monetary terms, Keynes is avowedly trying to escape the classical view of interest as dependent upon saving and investment. Does he in this particular

¹² "The General Theory of Employment," p. 211. ¹³ *General Theory*, pp. 167-168.

respect succeed? At least some of his critics think not, as witness the general commentaries of Harrod and Hicks, even though Harrod regards the "liquidity-preference" formula as a "vital link between the general system of equations and monetary theory."¹⁴

Several of Keynes's reviewers address themselves directly to his monetary theory of interest and analyze it in detail, especially Viner, Robertson, and Ellsworth.

Viner feels that Keynes's "liquidity-preference" factor—the alleged natural preferences of people for "holding" money rather than long-term securities—is "grossly exaggerated," in that Keynes "takes it for granted that [such preferences] are ordinarily so strong for the average person in control of liquid resources that a substantial interest rate is required to overcome them."¹⁵ Viner presents a number of pertinent considerations to establish his contention that no such powerful human propensity exists; that Keynes improperly magnifies the influence of hoarding; and that a desire to hold money cannot be set over against a desire to hold long-term securities as opposite phenomena, since both desires may often be satisfied by the same transaction, since no sharp line of demarcation between money and investment can be drawn, and since "every money market has an elaborate machinery for transmuting short-term loans into long-term investments and long-term loans into short-term investments, to suit the convenience of original lenders and ultimate borrowers." He then goes on to point out that, although Keynes tries to leave saving and investment out of his interest picture, these factors are there just the same. "Without saving there can be no liquidity to surrender." The "transactions-desire for cash" varies "positively with the volume of investment, of income, and of expenditures for consumption." Thus, Viner concludes, saving and investment are restored—"tho, I admit, in somewhat modified and improved fashion—to their traditional roles as determinants of the rate of interest."¹⁶

Robertson, to whose commentary Viner refers with approval, offers even more exhaustive criticism along the same general lines. To make his argument concrete he follows "the upward swing of an

¹⁴ *Op. cit.*, p. 85.

¹⁵ *Op. cit.*, pp. 152-153; also, Schumpeter, *op. cit.*, p. 795.

¹⁶ *Op. cit.*, pp. 153-159.

expansion initiated by the monetary authority." Because of an assumed fall in the interest rate, the authority "hands out" money through the purchase of securities and through loans. Let us say the seller of securities "holds" the money he receives, while the borrower uses his in business. The latter we assume must evidently be influenced in his borrowing by the concurrent business expansion, by an increase in prospective yield. In short, an investment or productivity factor is present; and here Robertson significantly interjects: "A formula which obscures this by lumping together in the same portmanteau those who desire to *hold* more money and those who desire to *use* it does not seem to me helpful towards clarity of thought."¹⁷

The profitable business *use* of this borrowed money, furthermore, will serve to increase income and savings, thus tending to counteract any increased "holding" of funds, and it will also cause changes in "liquidity preference." Hence the latter is by no means the outside determinant that Keynes thinks it to be, but interdependent with income and savings—a point which Ellsworth likewise emphasizes in another brilliant commentary.¹⁸

In connection with his analysis, Robertson points out four varying and sometimes conflicting ways in which Keynes applies his liquidity formula, and he discusses certain interesting confusions, omissions, and discrepancies that ensue. Of particular significance in Robertson's analysis are the implications of Keynes's division of the quantity of money, which people desire to "hold," into two parts: (1) transactions and precautionary "holdings" (depending primarily on the level of income); and (2) speculative "holdings" (depending primarily on the rate of interest).¹⁹

Out of this analysis emerges once more the "productivity curve of funds devoted to investment uses," which, though it was Keynes's purpose to exclude it, is thus readmitted "by a back door" and by the use of a formula (liquidity-preference) which unfortunately directs "our attention away from the factor [productivity] which in

¹⁷ *Op. cit.*, pp. 176-177.

¹⁸ *Ibid.*, pp. 178-186; Ellsworth, *op. cit.*, pp. 769-772; Viner, *op. cit.*, p. 158. But note also Keynes, *General Theory*, p. 173.

¹⁹ Keynes, *General Theory*, pp. 194-201.

the later stages of monetary expansion usually proves to be of decisive importance." The "causal connection between productivity and interest" is now re-established, says Robertson, who ends his commentary with the wish "that Mr. Keynes had found it possible to say his say about it [the interest rate] without, as I think, cumbering our judgments with an apparatus which accords to Liquidity a unique position in the theory of interest to which, even in the short run, it is not, I have attempted to argue, entitled."²⁰

Robertson and Viner seem primarily concerned in their criticism with endeavoring to show that Keynes's monetary theory of interest has not in reality departed from the "classical" model. Some of their excellent comments are thus not followed to a logical conclusion, as it seems desirable that they should be. One of these comments, by Viner, bears upon Keynes's superficial and confused distinction between "holding" money and "using" money. Robertson follows Keynes somewhat in this confusion, which centers primarily upon *where* the "holding" is supposed to be taking place. Keynes speaks frequently of the individual's preference to "hold cash" or to "hold idle money," and Robertson does likewise, without there being any clear indication of just what such "holding" implies, although Robertson suggests at one point that the cash thus "held" might be held in banking accounts.²¹

Viner, who apparently prefers to view "liquidity-preference" in terms of the more familiar concept of "hoarding"—a perfectly proper procedure in Keynes's own view, for he has them "come to substantially the same thing"—makes the following pertinent statement on the general question of "holding" money:

It is the corporations, institutions, and governments that hold at all times the bulk of the cash balances, especially if savings deposits are excluded as constituting investments rather than cash. Moreover I suspect (I know of no data on the question) that at least in prosperous times the savers—those who add each year to their estates—who are supposed by Keynes to be a source of so much trouble because of their hoarding propensities, typically hold in cash a smaller percentage of their incomes, let alone of their total resources than

²⁰ *Op. cit.*, pp. 180-191.

²¹ Cf. Keynes, *General Theory*, pp. 166, 171, 194, 196, 199, 205, 207; Robertson, *op. cit.*, pp. 171, 176-178, 188.

do the spenders. The former have investment habits, and abhor idle cash as nature abhors a vacuum. The latter hold cash until the bills come in for settlement.²²

Now if we assume that the institutions and the savers here mentioned "hold" their cash for the most part in banking accounts and that the spenders "hold" their cash only until the bills arrive, does this procedure constitute a "liquidity preference" or "hoarding propensity"? And does it serve to retard investment? As Viner indicates in an earlier passage: "If the banker permits his investments to remain constant while his cash reserves are increasing, or if he maintains the same cash reserves for idle as for active demand deposits, or for time deposits as for demand deposits, or for deposits as for bank-notes in circulation, then the propensity to hoard which manifests itself in the maintenance of idle bank deposits does operate to check investment, but only with the connivance and support of the banking mechanism."²³

Keynes is, of course, thinking for the most part of individual "hoarding," not of institutional "hoarding," in developing his liquidity-preference apparatus, and Viner's remarks strike him in a rather vulnerable spot. Even the cash held in hand by individuals can hardly be thought of in terms of hoarding if it is merely held temporarily for transactions purposes. Its main effect then is upon the velocity of circulation, and it thus presents no new or peculiar problem that requires an esoteric "liquidity function" to elucidate.²⁴

Furthermore, when people and banks increase their relative cash holdings or hoardings, do they do this because interest rates have dropped? The actual reasons seem to be for the most part: (1) because in times of uncertainty people fear they will lose their holdings altogether if foundering financial institutions continue to hold them, and they then also wish to hold more in hand for precautionary purposes; (2) because there is relatively little demand upon the banks for loans at such times. That the interest rate had little if anything to do with the matter in the early thirties in the United States was evidenced in the heavy oversubscriptions of the more secure government loans floated in those years despite ex-

²² Viner, *op. cit.*, p. 159; Keynes, *General Theory*, p. 174.

²³ *Op. cit.*, pp. 155-156.

²⁴ *Ibid.*, p. 152.

tremely low interest rates. The people who bought bonds were primarily interested in some measure of security and the banks were interested in some place to invest their idle funds. It was not that their "hoarding propensities" or their "liquidity preferences" suddenly became overexcited.

We are now probably ready to deal finally with this so-called propensity or preference, recalling, in this connection, another important critical comment made by Viner. What in reality is this alleged preference for? For "liquidity" or "money," runs the general answer. But over against what? Is money or liquidity preferred to consumptive satisfactions? Apparently not for the most part. The preference propensity is not so potent as that, at least not with the masses of the people. For "holding" money rather than "using" it in business transactions? The propensity's potency is apparently not always great enough here either. For using money directly rather than through the medium of checking accounts in banks? Such a contingency apparently depends more upon current uncertainties than upon the potency of a propensity. For money or liquidity as against investment assets? No, as Viner points out and as Keynes agrees without apparently sensing the implications, since liquidity-preference between money and long-term assets is merely a matter of degree: These are not opposite phenomena to be set over against each other.²⁵ For what, then, is this overwhelming liquidity-preference which is supposed to determine the interest rate? How is it possible to set "preferred" liquid resources (composed of money and other readily marketable assets) over against "nonpreferred" assets in the manner that Keynes's monetary theory of interest seems to necessitate? How, finally, equate this nonhomogeneous "liquidity-preference" function with a presumably homogeneous "quantity of money"? Or is the latter to be regarded as nonhomogeneous also?

With respect to the liquidity question, we seem to be just about where we started. Small wonder Schumpeter and Robertson label liquidity a *deus ex machina* and that Schumpeter adds that it "conceals problems instead of solving them." Liquidity is never given a tangible meaning by Keynes and the more we probe into it the

²⁵ *Ibid.*, pp. 154-155.

more confused it becomes, unless it simply means "money and readily convertible assets," in which event we have the interest rate determined, on the one hand, by "preferences" or the demand for "money and readily convertible assets" and, on the other hand, by the supply or quantity of "money." This looks strangely familiar, and it would probably look even more familiar if money were more carefully defined in terms of the "loanable funds" with which the interest rate is as a rule presumably associated, even by Keynes himself.²⁶

A promising clue to this more precise delimitation of the monetary concept is found in the distinction drawn by Keynes between the transactions and the speculative demand for money; the one being admittedly "not very sensitive to changes in the rate of interest"; the other usually showing a "continuous response" to such changes. Both Robertson and Viner also emphasize the importance of this distinction, although for one reason or another the full implications of it are not pursued.²⁷

To the *transactions* demand for money, Keynes relates income and business deposits; the purpose of the one "to bridge the interval between the receipt of income and its disbursement"; of the other, "to bridge the interval between the time of incurring business costs and that of the receipt of sale-proceeds." The money to satisfy the transactions demand is in general made available through "the general activity of the economic system."²⁸ Let it be noted that part of the money thus made available by general economic activity is not borrowed money, another fact of importance apparently overlooked by Keynes. A portion, however, is borrowed at certain times to satisfy part of the transactions demand, and it is this portion upon which we must apparently focus attention if we are to distinguish loan funds (which respond to the interest rate) from consumer and business income-funds (which are "not very sensitive to changes in the rate of interest").

With the *speculative* demand for money, Keynes associates savings deposits, which are funds seeking "investment." Here we usually

²⁶ Keynes, *General Theory*, p. 165.

²⁷ *Ibid.*, pp. 171, 197; Robertson, *op. cit.*, p. 180; Viner, *op. cit.*, pp. 158-159.

²⁸ Keynes, *General Theory*, pp. 194-196.

have, he says, "a continuous response to gradual changes in the rate of interest."²⁹

At the beginning of his chapter on "The General Theory of the Rate of Interest," Keynes states that his theory has to do with "loanable funds . . . for the purpose of *new* investments."³⁰ From the foregoing discussion and the discussions of the last two sections, we are now in a position to interpret and supplement this general statement of Keynes to avoid some of the difficulties he encounters. First, the purposes for which "loanable funds" are used are evidently not merely for *new* investments. They cover, as has been seen, all types of business finance for which loans may be extended and, one should add, a certain amount of government financing and of personal and consumer borrowing as well. Second, the term "investment" should not be limited to its traditional significance of productive investment only, but must be viewed more broadly in terms of unproductive as well as productive items financed out of current savings and of the additional investment that may take place through credit extensions not liquidated currently.³¹ Third, "loanable funds" are evidently made up of two more or less distinct parts that need to be differentiated: loanable bank funds on the one hand; and, on the other, actual cash savings-funds seeking investment. To avoid confusion, these together will hereafter be designated "loan and investment funds."

It would seem, then, that for the determination of the interest rate the delimitation of the monetary concept we must have in mind is along such lines as those just described: that is, we must apparently focus attention not on all "cash" or all "money" or all "money and readily convertible assets," but simply on "loan and investment funds." We may thus change the inconclusive statement of a few pages back to read more precisely as follows: The interest rate seems to be determined, on the one hand, by the demand for, and, on the other hand, by the supply or quantity of "loan and investment funds." The statement now looks completely familiar.

We can thus more readily see, in the light of the preceding discussion, to what extent Keynes utilizes the "loan and investment" concept and to what extent he deviates from it in his endeavors

²⁹ *Ibid.*, pp. 195-197.

³⁰ *Ibid.*, p. 165.

³¹ Cf. p. 505, above.

to establish a special kind of monetary theory of interest. And yet this is only part of the story. We must still analyze somewhat further how this general demand and supply of loan and investment funds affects the interest rate, or, rather, affects the "complex of rates of interest" for debts of different maturities and risks, and to what extent the results thus obtained must modify the views which Keynes develops on easy money and full employment.³²

SECTION 140. THE CIRCULATING MEDIUM, LOAN AND INVESTMENT FUNDS, AND EASY MONEY

"Money" still seems to require more precise definition, even though the discussion of the last few pages may have served to clarify certain difficulties previously encountered. Obviously if bank loans are implied in the phenomenon of interest, the concept of money cannot be restricted to cash alone. On the other hand, to include "readily convertible assets" under money is to confuse the assets with the medium into which they are "readily convertible," that is, the bank loans for which they may serve as collateral.

The circulating medium has been previously spoken of as composed of coined and paper money and of deposit or credit currency, and the relationship of this medium in the United States to aggregate national income and to the total volume of monetary payments has been indicated. It is apparently the whole circulating medium and not coined and paper money only that must be held in mind when considering what Keynes describes as the general "Demand for Money."³³

It was also pointed out in this earlier account that, in the best year (1929) of American business history, the total aggregate income was about ninety-five billions of dollars, of which seventy-five billions represented consumptive expenditures and twenty billions the aggregate savings, and that the volume of monetary payments was probably something like 950 billions, all of which had to be accommodated by the circulating medium. These monetary payments (possibly 950 billions), the aggregate income (95 billions), and the savings (20 billions) may be compared with what Keynes designates

³² *General Theory*, p. 205.

³³ *Ibid.*, pp. 194, 196; also, chap. xxix, sec. 121, above.

as business, income, and savings deposits (or transactions and speculative holdings) in describing the demand for money generated by the activity of the economic system.

It may now be indicated how the 950 billions in monetary payments could have been accommodated in 1929, namely, by a velocity or yearly turnover of probably something less than twenty-six times on an average applied to a circulating medium of around 50 billions, which medium was composed of something like 44.2 billions in credit or deposit currency and 5.5 billions in coined and paper money, exclusive of 4.3 billions in monetary gold. The ratio of credit currency to coined and paper money outstanding was thus probably about 8 to 1. Its ratio that year to coined and paper money held in the national banks as cash reserves was 13.5 to 1, which (if the same ratio held for state banks) would tentatively suggest that, of the 5.5 billions in coined and paper money outstanding, possibly something like 3.3 billions resided in the banks and 2.2 billions were being utilized by businessmen and income recipients for pocket or till transactions-purposes or for hoarding.³⁴

One of our concerns here with the circulating medium in general is to make a rough estimate as to what portion represents ownership of monetary resources and what portion represents borrowings, since it is through the demand for borrowings that the phenomenon of interest presumably arises. It is the supply of and demand for bank loans and investment funds, not for the circulating medium as a whole, which we here wish particularly to analyze in more detail; but, in order that this may be accomplished, we must first differentiate the one from the other. For this purpose the circulating medium in the United States divides itself into three major parts: monetary metal, Federal Reserve currency, and deposit currency.

The *monetary metal* part of the circulating medium is that portion

³⁴ Cf. Nourse and Associates, *op. cit.*, Table 37, pp. 596-597; Moulton, *The Formation of Capital*, p. 195. The estimate of money in the banks and in the hands of businessmen and others is quite conjectural, largely because the Brookings' total of credit and deposit currency is very conservative, covering as it does only demand and time deposits and excluding even from these 9 billions of mutual savings banks deposits. Other Brookings' exclusions cover 4.8 additional deposits. The gross total of all reporting banks as of June 30, 1929, is 57.9 billions of deposits. Cf. "Annual Report of the Secretary of the Treasury for 1929," Washington, D. C., pp. 798-799, also pp. 522 and 654.

of the people's accumulated capital wealth or past savings which exists in the form of monetary gold and silver and other durable monetary metals. This monetary wealth is held (for the most part) by governments for safekeeping and for other purposes, though it belongs to those who possess currency bills and token money representing it and, in all modern countries, forms the basis of other currency.

Monetary wealth (or its token and paper substitutes) is, in the United States, generally held by its owners in the form of cash deposits in the banks (that is, in business, income and savings accounts). Some of it is held in hand or till; but, as we have seen, this does not necessarily constitute hoarding. It may be held pending consumptive or business expenditure a few days or weeks hence.

Besides actual monetary wealth in circulation (either as such or in the form of substitutes), currency is at times provided by the hypothecation by businessmen of certain other portions of tangible wealth, such as goods in process, on the basis of which further paper money may be issued to meet the fluctuating needs of business. Thus in the United States is *Federal Reserve currency* created, backed partially by gold and partially by eligible short-term notes of indebtedness. Such temporary "transformation" of tangible wealth into currency is just as acceptable and has just as wide a circulation as monetary metal or its substitutes. Federal Reserve currency is, however, much more elastic than monetary metal or its substitutes, measurably expanding and contracting with business needs.³⁵

That portion of monetary metal or its substitutes and of Federal Reserve currency held in commercial banks at any given time (placed there in cash as business, income, and savings deposits) forms the basis for the third part of the circulating medium, namely, the *loan deposits* created by the commercial banks. This part of the currency supply is the most elastic of the three, up to twelve or thirteen times the actual cash deposits being pyramided into loan deposits in the United States in the latter twenties.

To repeat, in 1929 monetary gold in the United States amounted to 4.3 billions in dollar value. In addition, coined and paper money outstanding totaled 5.5 billions, of which Federal Reserve currency

³⁵ Cf. pp. 405-406, above.

may have been 2.2 billions. Between three and four billions of this 5.5 billions was probably in cash bank deposits, serving as a basis for the creation of at least 44.2 billions of loan deposits or bank credit currency.

The general demand for cash and currency rests, as Keynes has pointed out, upon the activity of the economic system. During business expansion, such demand increases. When business falls off, it declines.³⁶ Increased demand is felt by and large in three ways:

(a) Those who own monetary wealth, held during depression in idle bank balances for the most part (though also in hand or till to some extent), accelerate its *use* for business transactions, consumption, investment, and other purposes. The first effect of increased demand is thus upon the velocity of monetary circulation.

(b) Those who own no monetary wealth or who need currency beyond their bank and other cash holdings, may hypothecate other wealth assets and *borrow* from the banks through the creation of loan-deposit currency.³⁷

(c) The original currency holdings and the new borrowings, through accelerated business activity, bring about increased monetary transactions, larger incomes, and greater savings, and thus swell business, income, and savings accounts in the banks, the last-mentioned becoming available for *investment* purposes through the purchase of stocks, bonds, and mortgages. Demands upon the circulating medium thus result in greater transactions use, increased borrowings, and accelerated investments.

So much for preliminaries regarding the supply of and the demand for cash and currency in general. We turn now to the supply of and the demand for loan and investment funds as such. The supply of loan and investment funds is obviously not coextensive with the supply of the circulating medium as a whole. All coined and paper money is theoretically loanable but not all is necessarily loaned, although the mere fact that most of it is in use by its owners for transactions purposes does not mean that it cannot also be loaned at the same time. Aside from personal accommodation loans of cash in hand, which are negligible for our purposes here, only that portion of cash *held in bank accounts* at any given time is in a posi-

³⁶ Cf., also, Mitchell, *op. cit.*, pp. 133-135.

³⁷ *Ibid.*, pp. 132-133.

tion to be loaned through the regular channels. The same situation maintains with respect to Federal Reserve currency, except that this already represents not only cash owned but also cash loaned. Of the 2.2 imputed billions in Federal Reserve currency in 1929, probably one third represented loans and two thirds, monetary gold.³⁸

The significant differentiation, therefore, between cash (that is, coined and paper money and Federal Reserve currency) in general circulation (or outstanding) and cash available for ordinary bank loans, lies in the fact that the latter exists in the form of actual bank deposits. As already suggested, of the 5.5 billions of these two parts of the circulating medium outstanding in 1929, between 3 and 4 billions were probably utilized as cash reserves by the banks. The third part of the general circulating medium is the commercial bank loans themselves, built upon the cash deposits just mentioned and indicated earlier as amounting to at least 44.2 billions in dollar value in 1929.

There is much of double counting in this loan-supply picture. Coined and paper money counts for transactions purposes and, if in the form of gold, may count in part for the creation of Federal Reserve currency also. The cash and currency thus outstanding, if deposited in banks, may count further (not only once again but a dozen or more times) in the creation of loan-deposit currency. In 1929 the ratio of the latter in the national banks to the cash reserves on which it was based, was, as already pointed out, 13.5 to 1. Velocity of circulation is another name for multiple counting, varying from time to time and place to place, depending upon the activity of trade. As indicated, we are here using the rough yearly figure of twenty-six, or once a fortnight, as an approximation to the number of times a year currency makes its round of usefulness and starts over again.³⁹

Double counting is once more in evidence when we examine investments as distinguished from the supply of loans, part of the three to four billions in 1929 (that part serving as cash bank reserves for loans) likewise serving as a basis for investments in stocks,

³⁸ Cf. Annual Reports of the Federal Reserve Board, Washington, D. C.

³⁹ Cf. Mitchell, *op. cit.*, pp. 126-128.

bonds, and mortgages—that part, in other words, in the form of savings deposits as distinguished from general income and business deposits. Current savings thus enter the loan and investment picture, and it is from the angle of savings that we may well sum up the matter thus far.

The supply of loan and investment funds is, in fact, based wholly upon savings, but hardly in the way traditional theory presupposes. First, it is based upon *past* as well as present savings—upon that part of past savings in the form of monetary metal or its substitutes on deposit in the banks at any given time and that part of wealth-assets hypothecated for the creation of Federal Reserve currency. Secondly, by a process of considerable double counting, these parts of past savings may be elaborated into a structure of loan funds or deposit currency a dozen or more times as great in quantity. This takes care, for the most part in the United States, of so-called short-term credits, about forty billions in 1929, if we deduct the actual cash used as a base. Thirdly, *present* savings are available for loans and investments, although they comprise but a small portion of the total cash. They come into being as a fractional part of income funds, possibly one fifth. As savings accounts they enter into investments, after which they become part of the income stream again and may be made available as cash bank deposits once more. Of the twenty or more billions of aggregate savings accumulated in 1929, as has been indicated, something like five billions went directly into new capital formation and between fifteen and sixteen billions flowed through long-term investment channels. With a velocity of turnover of (let us say) twenty-six, it would have taken less than two thirds of a billion in cash to finance these 1929 investments, this same cash when deposited in the banks serving to finance bank loans also.⁴⁰ Fourthly, short-term and long-term loan and investment obligations are readily convertible through modern financial-market facilities, so that the whole supply of loans and investments forms a more or less co-ordinated aggregate. Thus, although it may be said that savings are at the basis of the short- and long-term supply of loan and investment funds, it must be remembered that there are included here not merely current savings but also part o

⁴⁰ Cf. Moulton, *The Formation of Capital*, pp. 92-93, 104-108.

past savings and more particularly the credit extensions pyramided thereon perhaps a dozen or more times.

It should likewise be remembered, as pointed out in detail in a preceding section, that in any realistic sense current savings and current investment are not necessarily identical, even though investment be defined very broadly to cover not only unproductive as well as productive items but also the direct creation of new capital goods without recourse to investment channels and the part of savings held out of bank deposits altogether, that is, "invested" in liquidity. Even though thus broadly defined, it is still possible for additional investment to take place, over and beyond all savings, through loan or credit extensions not liquidated currently. But investment is ordinarily much more narrowly defined—in fact, so narrowly by orthodox dialectic that only new private capital-goods formation is included. To repeat: First, current investment is a broader concept than current savings. Second, not all of current savings goes into current investment as ordinarily understood, that is, it does not all flow through investment channels, and some of it is hoarded. Third, not all current investment is utilized for new private capital formation: In addition, some of it is used for public capital formation, for financing durable consumption goods, for refunding old obligations, for financing goods in process, for speculative activities of a nonproductive character, and for emergency needs of governments.

Savings that do not create capital goods directly, and are not hoarded, are utilized for the purchase of stocks, bonds, mortgages, notes, policies, and the like (covering such varied purposes as those mentioned above) and thus flow through investment channels, after which they enter the income stream again and help swell the bank deposits upon which loan funds are pyramided. With the constant interchange between long-term and short-term obligations affected through modern forms of financing and modern financial markets, it is often impossible to say where investments leave off and loans begin.⁴¹

Over against this co-ordinated *supply* of loan and investment funds may be placed a more or less heterogeneous *demand*. Out of

⁴¹ Cf. *ibid.*, pp. 23-24, 104-108.

numerous individual demand schedules may be built the traditional negatively sloping market-demand curve, made up of willing-to-pay interest rates and covering all varieties of repayment risks and maturities. A few people will be prepared to pay high rates but will expect the lender to take a high risk; more people can furnish better assurance of repayment and wish funds if the interest rate is somewhat lower; many more have still better security and want funds if the rate is lower still. Every type of short, intermediate, and long-term demand for loan and investment funds may be included in such a heterogeneous schedule or set of schedules.

The purposes for which funds are sought may also be diverse. Part of the demand is necessitous; part (so to speak) calculated. Necessitous demand for funds that regular income cannot provide may be personal, as for hospitalization, or it may be for business needs of an emergency character, or for governmental use in time of crisis. Necessitous demand, being of an emergency nature and usually unproductive in a business sense, is presumably little influenced by the interest rate. As for calculated demand, this may be for consumption or for investment purposes. Demand for funds to build a home or purchase a pleasure automobile is consumptive in nature, is also usually unproductive in a business sense, and is probably only slightly affected by ordinary changes in the interest rate.

Calculated demand for investment funds may be either unproductive or productive in the sense described. It may be for speculative stock-market purposes, for financing current productive operations such as goods in process, for refunding old capital assets, or for the creation of new capital goods. Both bank loans and the issuance of new stocks and bonds are represented in such demand, which, while it does not always lead to new capital formation, is nevertheless based upon an expectation of profitable return at least as great as the willing-to-pay interest rates. There is thus a direct relationship here. In calculated demand, the greater the anticipated yield from the investment funds sought, the higher will be the willing-to-pay rates of interest.

Most of the heterogeneous demand for loan and investment funds is probably on the basis of prospective yield; but it should be borne

in mind that this expected return is not based primarily upon the cost of new assets, but upon the recapitalization of old and new assets alike which is constantly going forward through highly organized modern financial markets. Already analyzed confusions between capital goods, money funds for business use, and capitalization have their primary bearing here.

The whole of the demand for and the supply of loan and investment funds makes a co-ordinated system which it is difficult to separate into segments that relate one kind of demand to its corresponding supply. There is of course a short-term demand and a long-term demand, but for reasons already indicated one cannot say that all short-term demand is for commercial purposes and all long-term demand for productive investment. Most stocks and bonds need not be held by their possessors for long periods of time and their purchase is by no means always equivalent to new capital formation. Borrowers and investors are interested in the yield on their holdings (account being taken of risks and maturities), not merely in whether new capital goods are being formed thereby. There is a co-ordinated supply of loan and investment funds and a heterogeneous demand because in the main the use of such funds is expected to yield monetary returns. This general situation, not merely the marginal productivity of capital goods, apparently accounts for the schedules of interest rates. If one is thinking of ultimate factors that give meaning to "expectation of yield," one should apparently think of the marginal productivity of the business system as a whole, which includes all the factors of production, exchange, distribution, and consumption, and the psychological factors of confidence, uneasiness, and fear as well. And here we seem to come back again for a basis to continual stock-market capitalizations.

The relationship *between* the supply of and the demand for loan and investment funds has been for the most part excluded from the foregoing account, since certain considerations here make for a peculiar situation, quite different from that with respect to the ordinary commodity or service, and thus separate treatment is merited. If it is a dubious procedure, as Schumpeter points out, to attempt to set aggregate supply or output of goods and services over

against aggregate demand, and to expect to find a particular point of intersection, it would seem to be an even more dubious performance to expect to locate a unique interest rate in similar fashion. We are not dealing here with homogeneous functions, even though they are co-ordinated functions; more important still, we are dealing with a situation wherein, given the monetary wealth in existence at a certain period, the supply of loan and investment funds that can be created on the basis of this wealth, with negligible cost to the monetary authority, is not only relatively great (it may be a dozen times as great), but this supply follows immediately on the heels of the demand. In short, within rather elastic limits, the demand creates its own supply forthwith, and at trifling expense.

Three cyclical periods are to be distinguished with respect to the relation between demand and supply of loan and investment funds: (1) the depression period, when the supply of even monetary wealth is redundant; (2) the revival period, when demand catches up with the supply of monetary wealth and without difficulty creates a further supply of credit-loan currency; and (3) the boom period of expansion, at the end of which money and credit may both become tight and further loan extensions are made difficult if not impossible.

In the depression of the early thirties in the United States, existing monetary wealth accumulated in the banking system and otherwise, acting like a deflated blimp, the folds and wrinkles getting in everybody's way. Velocity of circulation had fallen off, bank loans had been greatly reduced, discount and interest rates had declined. What little loan demand existed was for the most part necessitous, and superabundant cash lay idle. Necessitous government loans were, during this period, oversubscribed time and again at very low interest rates.

With money rates low and funds plentiful, why did not investment demand pick up? Keynes's explanation would be that the rate of yield was still lower and that the interest rate should have been pushed down still further, with which idea we may generally agree. And yet, the chief difficulty here was that prospective yield was largely negative, that firms were operating in the red; and the more important question still remains as to why such a situation could maintain, that is, why prospective yield should suddenly have fallen

to a minus quantity and the productive equipment remain largely unchanged.

In time, after much "pump priming," income and expenditure increased, which multiplied the transactions need for currency and injected enough life into the monetary balloon so that the folds and wrinkles disappeared and a more "normal" contour ensued. Necessitous borrowing continued, and, added to that, prospective yield became positive and turned upward—all this with no apparent strain upon the monetary balloon, the elastic credit-fabric of which had hardly begun to stretch as compared with the situation maintaining in the latter twenties.

From 1933 to 1937, the United States was apparently again in an expansion period, though hardly comparable to that of the latter twenties, a period in which demand for loans creates its own supply. At such times demand for Federal Reserve currency, at prescribed discount rates, is met with the creation of the needed supply within the elastic limitations of the Federal law. Demand for bank loans, within limits that are even more elastic and with negligible cost to the banks, is met with further additions to the circulating medium. With the injection of additional credit as in the latter twenties the monetary blimp may not only take up all its slack but without undue strain may be inflated to more than a dozen times its "normal" size.

During an early expansion period and before money stringency sets in, the effect upon the interest rate of an increasing demand for loans that is forthwith met by the creation of the requisite supply, may be virtually nil, and this is probably as it should be. But such a situation merely serves to demonstrate further that in business depression, in revival, and in early expansion, in a country like the United States, monetary factors probably play a decidedly subordinate role in influencing the interest rate.

An easy money policy under such circumstances is undoubtedly helpful in facilitating liquidation and necessitous financing, but its influence upon increased employment and upon income is probably inconsequential. What affects changes in prospective yield on capital remains the question of prime importance here.

When money and credit become tight in a period of boom we

have, of course, an entirely different situation. Monetary forces then become dominant. The interest rate takes on importance. But by this time an easy money policy can no longer be maintained, business expansion has already got well under way, and, as a rule, unemployment has ceased to be a pressing problem.⁴²

SECTION 141. CONCLUDING COMMENTS

We are finally in a position to draw together the methodological considerations analyzed in the foregoing sections and to conclude our observations on Keynes's central argument.

In the quotation given on an earlier page covering that argument, the following statement was left for additional examination: "The inducement to invest will be found to depend on the relation between the schedule of the marginal efficiency of capital and the complex of rates of interest on loans of various maturities and risks."⁴³ What does our further analysis demonstrate with respect to this statement?

(1) "The complex of rates of interest on loans of various maturities and risks" is found to depend on the demand and supply, not of money alone or of the circulating medium as a whole, but of that portion of the circulating medium covered by loan and investment funds. For constructive analysis, we concluded that money must be rigorously defined, though neither too narrowly nor too broadly. It appears to be best defined in the United States as that part of the circulating medium composed of monetary metal and Federal Reserve currency or its coined and paper representatives, in other words, of cash. That portion of cash held in commercial bank deposits at any given time serves as a base for the creation of the loan and investment funds with which the phenomenon of interest is associated.

(2) The "schedule of the marginal efficiency of capital" is defined by Keynes as the prospective or hoped-for yield of "capital," not only of old capital goods and of new ones, however, but of the whole business system in terms of monetary funds currently used in all phases of business finance and of a continual speculative recapitalization of existing assets through modern security markets. Prospective

⁴² Cf. Mitchell, *op. cit.*, pp. 133-135; Viner, *op. cit.*, p. 159.

⁴³ See p. 469, above.

yields are, in short, the schedules of returns expected by borrowers of funds for every variety of business use—productive and unproductive investment, financing of consumer-goods production and distribution, repurchase of already existing securities and properties, and refunding of old obligations—the expectations of yield following upon day-to-day speculative recapitalizations of existing assets. Realistic investment means all these things and not productive investment alone.

(3) The "inducement to invest" may thus be said to depend upon the prospective yield of money funds used for business purposes, due account being taken of existing schedules of interest rates. In brief, the higher the net prospective yield or anticipated profits and dividends, including interest as one of the costs of doing business (along with rents and wages and salaries), the greater will be the inducement to invest.

These general conclusions drawn from the central argument of Keynes do not, however, get us very far with respect to the major problem of Keynes's analysis, the problem of increased employment. With this, *productive* investment alone is correlated. What is the specific and direct inducement here?—a question not answered by Keynes, for the reason that he apparently does not appreciate the importance of unproductive investment in modern business and draws no distinction between investment and savings, regarding them as identical. Realistic distinctions with respect to investment and savings have been sufficiently analyzed above and need not be repeated again. It is the inducement to productive investment that requires further attention.

Keynes's easy money policy to stimulate "investment" and thus employment, takes on quite a different meaning when the distinction between general investment and productive investment is held clearly in view. With this distinction in mind, the following difficulties have been observed:

(a) Easy money may or may not stimulate general investment (including unproductive as well as productive items), depending upon whether there is sufficient yield to stimulate demand. Witness the depression of the early thirties in the United States, with plenty of money in the banks and interest rates low, and yet with

relatively few takers except for necessitous financing. The factor of yield or demand is here evidently at least as important for stimulating investment as a plenteous supply of loan and investment funds at easy rates.

(b) Easy money, if it does help stimulate general investment, may stimulate unproductive activity to such a degree that a collapse of the business system ensues. Such may be regarded as at least part of the situation in the United States at the end of the upturn of the latter twenties.

As already pointed out several times, in 1929, the best year of our business history, total aggregate income in the United States was around ninety-five billions of dollars (including unproductive capital gains). Consumption expenditure was about seventy-five billions. Savings (including corporate surpluses) were something like twenty billions, of which about five billions went directly into new capital formation and about fifteen billions flowed through regular investment channels.⁴⁴ Of the latter, another five billions or so likewise went into new capital formation. The other ten billions moved through regular investment channels; but, instead of resulting in new machinery and equipment, they were mainly used for the unproductive purpose of bidding up the prices of existing equities through stock-market speculation. A similar situation maintained, though in somewhat lesser degree, from 1925 through 1928. During this whole period, savings had become to a large extent redundant and unproductive. Easy money, under such circumstances, could only serve to aggravate an already unhealthy economic situation.⁴⁵

Certain significant questions intruded themselves at this point in our analysis. Why, in the best year of American business history, did only about half of the aggregate savings result in new capital formation? What held back the process? Long-term interest rates were not so high as to make productive activity difficult. On the contrary, they were rather low; in short, money for long-term use was easy; and, according to Keynes, productive investment should

⁴⁴ See chap. xxix, secs. 120 and 122, above.

⁴⁵ Cf. Moulton, *The Formation of Capital*, pp. 151-154, 159-160.

therefore have been stimulated rather than retarded.⁴⁶

In a recent reply to several of his critics, Keynes repeats the classical assumption that "the amount of consumption-goods which it pays entrepreneurs to produce is a function of the amount of investment-goods which it pays them to produce."⁴⁷ We have observed that the reverse of this generalization is also true and that when stated in reverse form we have a real clue to the cause of the aforesaid retardation. In short, if the production of investment goods depends upon the production of consumption goods, the demand for the latter conditions the demand for the former. A retardation in the demand for consumption goods will cause a falling off in the demand for investment goods, despite the amount of savings and whether or not money remains easy. This, we found, was precisely the situation in the United States during the boom of the latter twenties. Consumption lagged in relation to the rise in income, savings mounted disproportionately, and investment goods were held back because of the relative falling off in consumer purchasing power.

Under partial employment, the relationship between consumer demand, productive investment, and prospective yield would thus seem to be more or less direct. An increased consumer demand, following upon greater consumer income, apparently results normally in increased output by existing plants, in higher prices for finished goods, in an additional demand for capital goods, and in a greater anticipation of yield by businessmen by and large. A contraction in consumer income and thus in consumer demand results presently in a shrinkage in consumer-goods output, which brings about a contraction in the output of producers' goods and in prospective yields. The fact that, in the latter twenties in the United States, a decreasing proportion of savings went into new capital goods, despite the prosperity boom, clearly demonstrates that under certain circumstances savings and productive investment may be far from equal, that the supply of savings does not of itself create the demand for capital goods, that the really potent demand factor (consumer purchasing power) may at times be unduly restricted,

⁴⁶ C. Moulton, "Capital Formation and Inequality: In Reply," p. 619.

⁴⁷ "The General Theory of Employment," p. 223.

and that easy money for long-term productive investment is not in itself the efficient factor in stimulating new capital growth and thus fuller employment.

Assuming that consumer purchasing power or demand was relatively restricted in 1929, we have already reviewed how its stimulation that year could have brought about fuller employment, it being estimated that there were a million and a half of idle employables during that best of all American business years. Let us examine this question further, by first leaving additional capital formation out of the picture, that is beyond the ten billions presumably added that year, and also holding in mind that the American productive machine in 1929 was operating at only about 80 per cent of effective capacity and that as it stood it could have turned out up to fifteen billion dollars worth of additional consumer goods if it had been utilized to the full. Such a greater output, it also appeared, could have just about absorbed the one and one half million idle employables and thus would apparently have resulted in "full" employment.⁴⁸

If the ten billions of redundant savings which did not go into new capital formation that year—and which were used as a base for the credit currency poured into the stock markets in the bidding up of equity prices—if these had been secured by appropriate taxation and had been used instead, for example, through social security and similar payments, to enhance the purchasing power of the masses, part of the aforesaid increase in output of consumers' goods could have been anticipated. If Y be taken as the gross income that year, C the actual consumption, S the savings (made up of s_p , productively used savings, and s_u , those unproductively used), and C_a the hypothetical additional consumption, then, other things being equal, we have:

- (1) $Y = C + S = C + s_p + s_u$
- (2) $C_a = s_u$ *ex hypothesi*
- (3) $Y = (C + C_a) + s_p$

According to 1929 figures, s_u (or C_a) was about ten billions, and around fifteen billions of increased output of consumers' goods

⁴⁸ Cf. Nourse and Associates, *op. cit.*, pp. 429-430.

would have been necessary to bring about "full" payment. In short, the assumed shift from unproductive savings to additional consumption would presumably have gone two thirds of the way in 1929 toward "full" employment.

In this assumed shift, other things would not of course have been equal. There would have been time lags, some realignment between consumption and savings, some change in total income. Particularly, stock-market activity and new capital formation would not have remained unaffected. The general effect upon the former, in holding back speculative advances in the prices of securities, would have been to hold back overcapitalization and thus to have raised the marginal efficiency (productive yield) of "capital." And the effect upon the latter (that is, upon capital formation) would have been, because of augmented consumer demand and marginal efficiency, to increase the output of capital goods and thus to add still further to consumption, income, and employment. Under such circumstances, an added five billions in capital formation, consumption, and income would have brought us within striking distance of "full" employment, without any deterioration in the quality of the national dividend.⁴⁹

It should here be noted, particularly, that the above hypothetical achievement of "full" employment in 1929 is predicated upon the maintenance of a progressive balance between consumption and productive investment. If there is to be a continuous increase in producers' goods, there must apparently be a corresponding increase in consumer income or demand.

(c) Easy money may indeed on occasion help to stimulate productive investment and thus increase employment, but, unless at the same time the aforementioned balance between consumption and productive investment is maintained, the increased employment would be but temporary and might later fall off again till another underemployment balance developed. Or, if there were no

⁴⁹ Cf. Taussig, *Quarterly Journal of Economics*, Nov., 1936, pp. 198-203, on the desirability of maintaining qualitative standards. It is, of course, important that in addition to moving toward full employment, the quality of the national dividend be maintained or improved. The real national dividend of useful goods and services, as Keynes points out (*General Theory*, pp. 38, 128-131), may be increased and paid for out of savings, by digging holes in the ground; but such an increase is hardly qualitative in character.

falling off, because consumption had increased to meet the increase in productive investment, a new balance might be established at still another, though higher, level of underemployment.

This would, after all, seem to be the essential point of Keynes's central argument, his theory of employment equilibrium, whether at partial or full employment, since this argument emphasizes the fact that there are different stagnation levels "at which there is no inducement to employers as a whole either to expand or to contract employment."⁵⁰ His theory takes into account any number of such equilibrium positions of partial employment at which conditions of dead-center balance between consumption and productive investment might maintain.

(d) As suggested in our analysis of equilibrium economics, the way to get off or to avoid such *dead-center* balance is to achieve a *progressive or moving* balance between the two primary factors involved. Consumption and productive investment tend to move forward together, stop together, or contract together. Anything that obstructs one of these two factors will, it appears, set a dead-center equilibrium point to which the other, despite lags and leads of various kinds, will tend to conform.

Keynes's easy-money policy is focused upon one of these factors while the other is neglected. During certain periods of the trade cycle, an easy-money policy is undoubtedly helpful in smoothing the way for the expansion of productive enterprise. But, unless at the same time a proper balance is being maintained between consumption and savings, to the end that the growth of the former may continue actively to stimulate productive investment without piling up a sterile redundancy in the latter, the road is merely made easy for stock-price inflation, overcapitalization, and the eventual dead-center stagnation and collapse which in the past have always followed a period of boom activity in business.

In concluding this critical appraisal, we make Schumpeter's words our own with respect to the service Keynes is rendering political economy. Whatever unfavorable comments may be offered regarding part of his views, they simply bear "tribute to one of the most brilliant men who ever bent their energies to economic problems."

⁵⁰ *General Theory*, p. 27.

Despite what might be thought of as shortcomings in his analysis, Keynes has not been afraid to change his mind in the past and will undoubtedly change his mind again. For underneath all his classical dialectic lie his superb realism and his intuitive sense of the important economic problems of the day. History, he says, shows the "propensity to save to be stronger than the inducement to invest."⁵¹ In the light of the recent statistics cited, one need not become enmeshed in classicism to appreciate the significant implications of such a realistic observation. Modern society must apparently achieve a constructive balance between these two forces instead of allowing one to remain or to become stronger than the other. Appropriate income, inheritance, and excess profits taxation, for example, may serve to prevent the piling up of redundant savings. Social security and other effective measures may add to mass purchasing power and thus add to productive investment inducements. Other measures may prove to be equally if not more effective. In short, a further modification is called for of the tribute-rendering economic structure inherited from feudalism and serfdom, to the end that the ability to save will no longer be stronger than the inducement to invest productively.⁵²

Whether Keynes or his critics get the better of the argument over full employment and easy money is not so important at present as is Keynes's realistic stirring-up of the classical broth. Many of his critics are stewing in the same scholastic mixture. The major difference seems to lie in Keynes's realistic approach. Outstanding among contemporary economists, firm in his purpose to provide a better analysis of pressing problems in forthright terms, Keynes is rendering real service in forcing a broad reconsideration of classical assumptions. Just a while longer and it may well be that the long-simmering classical pot will be overturned and the contents finally spilled, never to be used again. Only in some such eventuality, as we observed at the end of Part III of the present volume, does it appear that political economy can be rescued from the medieval influences which continue to keep it insulated from reality, and economists can finally be free to grapple with important current problems in the true spirit of modern science.

⁵¹ *Ibid.*, pp. 347-348, 358.

⁵² Cf. chap. xxvii, above.

CHAPTER XXXIV

PRICES AND VALUES

WE MAY NOW VENTURE upon certain broad conclusions regarding the relation, or lack of relation, between prices and values, which, as has been noted, are apparently the basic concepts to which costs and utilities are subsidiary.

We observed in Parts IV and V that today both prices and values are highly institutionalized. Does this mean that they, in some respects at least, run parallel? Or, more specifically, is there any sense in which prices measure values? Here are probably the most perplexing questions in the whole of economic theory; and our general analysis, if it has any virtue at all, should have thrown some light upon them.

We have seen that prices and values touch in the market, or rather that price is best viewed as the economic aspect of value. It is futile, however, to say that price *measures* the economic aspect of value. Since price *is* the economic aspect, this merely amounts to saying that price measures price. When hard pressed, classical theorists often unwittingly retreat to some such meaningless narrow position, but their general arguments have not been as narrow as this. Their ideas of value have been at least as broad as utilities on the one hand and costs on the other, even though both these concepts (and especially utilities) have been vaguely defined. We should thus rephrase the more specific question to read: Can prices be measured by either utilities or costs? Other value problems may be reserved until that question has been settled.

SECTION 142. MARKET-PRICE DETERMINATION

The utility theory of price determination is today probably still in the ascendancy among economists. We found serious objections both to the concept and to the theory. In Part I (Section 21) of our study the analysis disclosed that "utility" remains the chameleon imponderable of classical doctrine. It is vaguely defined, we saw, as

both subjective means and objective end, as quantitatively measurable yet serving normative standards, and in such broad terms that "satisfaction," "pleasure," "life," and "money" would seem to fit the concept equally well. Four general counts were recorded against it: its subtle ambiguity; its lack of homogeneity as seen in Person's criticism; its continued dependence upon an outmoded psychology; and its confusion of economic and ethical considerations. Hobson clarified part of the confusion by pointing out, in terms of human welfare, that not all consumption carries utility, nor all production disutility. Misleading advertising and the craze for prestige result in harmful consumption; the scholar and the artist usually find it pleasurable to produce. The principle of maximizing utility and minimizing disutility has clear-cut meaning, it was found, only in terms of human welfare. Thus, depending on the dialectical purpose to be served, the concept utility either merges with the concept money or price, which simply begs the whole question of price-determination; or it becomes a metaphysical abstraction, endowed with false characteristics of quantitative homogeneity, superrationality, and price proportionality; or it is viewed objectively as something the consumer gets or the consumable good possesses; or it becomes synonymous subjectively with any form of human interest or desire.

Accepting its imponderable character, however, and meeting the arguments of the utility theorists on their own premises, we noted, in Part II (Chapters XIII and XIV) of our analysis, more definite price-determination objections, to wit: (a) diminishing utility or desire is not a universal phenomenon, since increasing utility or desire is probably just as prevalent, and a uniform utility or desire is undoubtedly even more prevalent; (b) the alleged determinative significance of the margin in utility analysis is without serious foundation; and (c) the negative slope of the demand curve is better accounted for by unequal incomes, differing interests or desires, and prudential expenditures, thus eliminating the need for the fiction of a universally diminishing utility. In short, no matter how one defines utility, it cannot determine market price: first, because the generally diminishing utility and marginal assumptions are largely inapplicable; second, because the special ratio-of-

equality argument used by Davenport is contrary to fact; and, third, considering analyses based upon customary price, pecuniary choice, and the bounties of nature in supplying utilities to free and economic goods alike, because there appears to be no correlation between desire or utility and price offers. With respect to price determination, the contentions of the utility school were thus seen to be fallacious, while other more realistic hypotheses were available to explain the relation between the demand curve and market price.

On the other hand, the cost theory of price determination, either in terms of labor and waiting or of money costs, has suffered a marked decline in recent decades. The classical argument, as we saw in Part II (Chapters IX through XII) ran somewhat as follows: (1) it was conjectured that, in early society, embodied labor controlled exchange ratios; (2) under the hypothetical conditions thus assumed, embodied and commanded labor and commanded money would evidently be equal, hence they came to be regarded as equal in actual modern society; (3) scarcity and monopoly were thought of as virtually nonexistent, hence it was concluded that market price equals normal price and that these are determined by embodied or commanded labor.

The shortcomings of this argument were: (1) A primitive stage of society in which embodied labor measured exchange value or price, appeared never to have existed. Traditions of forced as well as free exchange, and of predatory power, monopoly, and tribute, seemed to have been the starting points of the "values" and "prices" inherited by more civilized descendants, who in slow stages eliminated the worst of the earlier political and social inequities. (2) By means of the "alternative" sophistry and the erroneous assumption of homogeneous units of labor and waiting, the doctrinal superstructure of cost as the measure of price was nevertheless erected. (3) Its crumbling began as scarcity and monopoly conditions came to be recognized more and more as the rule rather than the exception and qualitative differences in labor and waiting had to be admitted to account for decreasing per capita costs from generation to generation. (4) Its downfall was finally completed when a comparison of consumption with production factors brought to light an ever-mounting surplus or savings under modern production and indi-

cated the increasing importance of ability to pay as against cost of production as a determinant of price. The cumulative recognition of these fallacies and deficiencies spelled the doom of the classical cost structure.

Of these criticisms, three were considered fundamental: (1) that traditional cost theory makes no provision for eliminating wasteful or needless elements in past labor, as compared with more efficient present labor, so that embodied and commanded labor, with the lapse of time, are necessarily at variance; (2) that qualitative differences in "labor and waiting" are also unprovided for and that the existence of these must likewise be assumed to account for decreasing per unit costs; and (3) that, since mounting savings prove that production is cumulatively outstripping consumption, ability to pay must be of at least equal importance with cost in price determination.

We come back, then, to the familiar demand-supply relationship as determining market price. The demand schedule is made up of prices that people are willing, able, obliged, or accustomed to pay, and these prices are conditioned by diverse money incomes, desires, sales resistances, and habits. The supply schedule is made up of prospective money costs conditioned by what the entrepreneur expects the market price to be. Both these considerations are important, but they constitute a far cry from economic utilities on the one hand and real costs on the other. Certainly neither of these imponderables measures market price.

SECTION 143. BROADER PRICE CONSIDERATIONS

Cost and utility theories have had to do primarily with the determination of market prices, but the latter are not the only prices implied in these theories, even though the variations be strictly confined to a money frame of reference. Other varieties are natural or normal prices; customary, willing-to-pay, able-to-pay, obliged-to-pay prices; competitive, monopolistic, administered prices; fair, just, and effective prices.

Natural, normal, and competitive prices are all tied up with the classical theories of market-price determination and require no further treatment here. Monopoly and administered prices are

admittedly of quite a different character. Customary, willing-to-pay, able-to-pay, and obliged-to-pay prices are important for any realistic understanding of demand relationships. They have thus far been almost completely neglected in traditional economic doctrine, as have, also, fair, just, and effective prices, although some ethical standard seems to have been implicit in most attempts to relate costs or utilities to price. That certain ideal relationships should maintain appears to have been taken for granted all along.

The distinction between economic and human utilities carries this ethical implication. But even that distinction brings us no nearer to an ideal relationship between utilities and prices. Utilities are supplied by free goods as well as by economic goods, and prices obviously apply only to economic goods. Why should anyone wish or be obliged to pay a price for the free gift of nature? Thus no precise relationship seems possible between *utilities* and prices, no matter how this relationship is conceived, ideally or otherwise.¹

Does the same situation maintain with respect to *costs* and prices ideally conceived? As for real costs, in terms of "tired muscles and tedious waiting," the great virtue of classical theory regarding them was and is the ethical attempt to establish an ideal relationship between human effort and the money price one pays for the results of such effort. This attempt failed for reasons just reviewed. Such an ideal relationship has never existed in the past and does not exist at present, but it may conceivably be more nearly realized at some future time. As for money costs, the currently important distinction between original, reproductive, and prudential money costs may be regarded as pointing to an ideal relationship in the public interest. In prudent valuations, "write-ups" and useless and dishonest cost items are excluded.²

In the light of such possible ideal cost and price relationships, let us look again at the familiar demand-supply pattern. How does this appear from the standpoint of justice or fairness? We know that on the sides of both demand and supply the actual situation is far from ideal. Many inherited inequities persist.

As for demand: What people are accustomed to pay is no criterion

¹ Cf. espec. sec. 49, above.

² Cf. James Bonbright, *Valuation of Property* (2 vols.; New York, 1937).

of what they should pay. What they are able to pay depends upon the current distribution of income and wealth, and these, as we have seen, might be much more effectively apportioned. What people are willing to pay is a compound of what they are accustomed and able to pay, coupled with their variable desires; the latter should in reality not affect demand price at all, if human effort is the standard of valuation. Possibly have-to-pay price, based upon the human effort involved in production, is the fairest of all demand criteria, provided high-pressure salesmanship and unsocial buying habits are reduced to a minimum. False advertising should, of course, be prohibited, and all advertising should be in keeping with the public interest. Finally, people should be re-educated in line with fundamental and beneficial human interests. If luxurious display and conspicuous extravagance were widely ridiculed and made progressively less possible, there would be less tendency to set up false buying idols.

Similarly with the supply side: We know that supply price is by no means always competitive. It is, in these days, very frequently monopolistic or administered, which may be far from fair to the consuming public. In this connection, any ideal arrangement would be predicated upon a full understanding of supply-limiting factors and of their effect upon employment distribution in various occupations. Artificially produced scarcity or monopoly by private interests would be prevented. And wherever natural scarcity or monopoly existed, the specific benefits therefrom would accrue to society as a whole rather than to special classes or vested groups. At the same time, a fair supply price ought to include all reasonable elements of cost to the producer; risk and waiting should be covered, successful enterprise should be rewarded, fair labor costs should be allowed. But ethical criteria here are still to be satisfactorily developed. And the even more difficult problem of setting fair standards for accumulating business surpluses or establishing sinking funds have hardly been touched. Such are some of the present obstacles to working out equitable supply prices.

Let us assume, however, that fair demand and supply prices for individual commodities and services can be worked out. Will that be enough? How about new inventions or new forms of competi-

tion? How about widespread unemployment and business dislocation due to depression? What are the broader implications of fairness and justice in the sense of economic effectiveness, of keeping production and consumption in constructive and progressive balance? Can fair or prudential prices and costs be visualized in such broad terms without creating inequities for individual entrepreneurs?

Such broader considerations, as they bear upon justice, fairness, and effectiveness, merit further attention here. They become clearer as we recall some of the traditions inherited from medievalism and some of the differences between the medieval economy and the modern.

SECTION 144. MEDIEVAL AND MODERN FAIRNESS, JUSTICE, AND EFFECTIVENESS IN PRICE

The medieval structure, as we observed in Part V (Chapter XXVII), was essentially a tribute-rendering mechanism, drawing everything possible in services and kind from an exploited peasantry. The economic structure was then predominantly agricultural with material scarcity ever imminent. Today the system is primarily industrial with an embarrassment of plenty failing to cover the needs of great masses of the people. The medieval problem later became one of commuting existing transfers in kind and services into money payments, the mechanism of exchange being at the time largely mediatory and incidental, and trade as such being looked upon with suspicion. The needs of local, virtually self-sustaining units were all that were taken into account in the purview of relationships assumed, and the disputes that arose were necessarily individualistic in character. All of this is very different today, and the price system manifests certain important general characteristics quite apart from the mediatory position it still holds.

In the medieval period, the idea that exchange was largely mediatory and incidental carried with it as a corollary the belief that money could not be wealth or be productive in any sense. Hence the conclusion that interest and profits must be usurious and the failure to focus attention upon the inherent peculiarities of any system of prices and upon money as a commodity. Interest and profits are now generally regarded as legitimate returns from

the productive use of money, which as a commodity may fluctuate in price and may thus have important effects upon the whole system of prices and upon all other commodities. The medieval assumption that there were natural laws of a moral or spiritual character, easily discerned and applied to particular situations, colored the economic and social thought of the period and gave rise to the doctrine of the medieval just price, which turned out to be a further rationalization of the tribute-rendering *status quo*. Though later theorists regarded economic laws as mechanical in nature, automatically correcting disturbances in an assumed economic equilibrium, there was nothing in this change of attitude which might have served to remedy the underlying inequities of the medieval tribute-rendering mechanism, and thus in general the earlier rationalizations have been repeatedly reaffirmed, though in ever more modern terms.

One of the chief problems growing out of the greatly extended use of money in modern times has to do with the periodic lack of balance between total consumer purchasing power and the total prices of consumers goods and services, which recurring disequilibrium brings in its wake the severe modern conditions of "overproduction," widespread unemployment, and bankruptcy. Closely allied to this problem of unbalance, with respect to which the concept of "effective" price has been advanced, is the relationship of money income to the general price level, which relationship is by no means always the same, the divergencies creating further price and cost inequities. Were a certain amount of fairness or justice in income distribution established while the price level continued to fluctuate, the equities temporarily achieved would probably soon vanish again. Another closely connected problem pertains to the character of the credit structure, to the creation of fictitious prices in the process of extending credit and of fictitious costs in the maintenance by corporations of various kinds of undistributed surpluses and questionable reserve or sinking funds. All such problems must be taken into account in dealing with the question of price justice, fairness, or effectiveness under modern conditions.

Running through most of these distinctions between medieval and modern economic conditions, another fact of importance is to be noted. While the problem of medieval economic justice applied

to *individual* commodities and services, the correlative modern problem apparently applies primarily to *groups* of producers, distributors, purchasers, and the like. This situation is particularly obvious in the periodic lack of balance between production and consumption and in the fluctuations of the price level just mentioned. Is it "just" or "fair" that our shop windows bulge with goods that cannot be sold even with repeated sales at bargain prices while great numbers of people through no fault of their own lack the purchasing power to provide themselves with even the elemental necessities of existence? Is it "fair" that people dependent upon fixed incomes be subjected to the vagaries of a fluctuating price level?

Other illustrations may be seen in the relation of domestic to foreign trade or of production to distribution. Is it "fairer" for a country to allow foreign competition to depress the wages and living standards of its workers while forcing down prices, or for it to maintain higher domestic wages through tariff walls that hold up prices? What is a fair relationship in price differentials between farmers and industrial workers? Should producers fix prices and allow retailers only a stated percentage to cover their services? Who should bear the burden of spoiled or outmoded leftovers? Is it fair to consumers for producers to maintain customary prices while improved machinery and methods reduce production costs? Such questions exemplify the fact that in modern roundabout industry the problem of justice or fairness has more and more become one of balancing the interests of broad groups of enterprisers, capitalists, wage earners, farmers, industrial workers, producers, distributors, consumers—and particularly of providing basic necessities at all times to every one able and willing to work.

To sum up this phase of the matter: Just prices in the medieval economy applied to individual commodities and services. The carry over into modern times is in terms of fair prices which presumably cover fair wages, fair interest, fair dividends, fair rents, and fair profits. But, as we have seen, no matter how fairly these elements are defined with respect to individual situations, the major modern economic problems may still be untouched, that is, there remain the tribute-rendering character of the economic system,

which continues to make for an unfair distribution of income, and the periodic lack of balance between production and consumption, which causes widespread group inequities, no matter how "fair" the prices of individual commodities. In short, modern conditions are such that sole emphasis can no longer be placed upon prices of individual commodities in setting up desirable criteria. Fairness between broad groupings and categories is even more important in these days, and here fairness merges into effectiveness within the economic structure as a whole. It may be that, by an extension of the system of insurance, fairness in prices to individual producers might be uniformly assured. At the same time, an equitable public policy might be focused upon developing ways and means of maintaining effective balances between the major groupings and categories of the modern economic system.

Be such things as they may. Here, at any rate, are outlined some of the problems involved in any endeavor to relate prices and costs in an ideal pattern of economic justice or effectiveness. Somewhere within this pattern, it seems reasonable to assume, can be found a definite relationship between effective prices and prudential costs. Thus, while no relationship would appear to exist between utilities and prices, we may confidently assume one between costs and prices under certain more ideal conditions still to be worked out.

SECTION 145. VALUES, UTILITIES, AND COSTS

We now turn our attention again to values instead of prices. What are the possible relationships here with respect to utilities and costs?

Values, as has been indicated, are based upon human interests or desires, with judgment playing an important mediatory role. As for comparative values or interests, three bases for comparison were found—intensity, duration, and inclusiveness—each of which turned out to be a unique criterion, rendering comparison possible in a peculiar way between or within values or interests as qualitative wholes. This did not imply, however, that such comparisons could always be made in arithmetically commensurate terms, as with money prices or money costs. The chief clue to the formulation of a hierarchy of individual and social values was not found

here, but in interests and values as qualitative uniques, and in preference and behavior—the psychophysiology of the latter still being very obscure and the preferences as often as not of a capricious nature.

Though real costs and values are qualitative rather than quantitative in character, real costs are definitely related to human effort or sacrifice, not to human interests or desires, which may or may not require economic effort for their satisfaction. And this situation applies to money costs as well as to real costs. No matter how fairly or prudentially or effectively these are arranged, no matter how completely existing inequities are eliminated from the economic structure, there remains the already emphasized respect in which the fairest system of costs must fail to run parallel to comparative values or interests. The satisfactions of interest or desire afforded by any commodity or service are made available by two agents, by nature and by human effort, the contributions of which are mixed in no proportionate fashion. Sometimes nature contributes much, sometimes little, to such satisfaction. Nor is there anything rational or consistent in the relationship of nature's contribution to man's. Satisfactions flow from the *whole* commodity or service, not from the portion supplied by man's effort alone, and it is these indivisible satisfactions that reflect human values or interests or desires, whereas in the fairest of conceivable arrangements, costs should reflect man's effort alone; and this is quite a different matter from man's effort plus nature's contribution. There is thus no tangible correlation between comparative values and comparative costs.

But while no definite relationship may be envisaged between values and costs, what about such a relationship between values and utilities? The answer to this question must depend, of course, upon the meaning assigned to the imponderable "utility." Still, in recent arguments of utility proponents, we have noted the tendency to regard utility and desire as interchangeable terms, and in so far as this is true, the question is readily settled. If utility means desire, it means human interest, in which sense values and utilities certainly run parallel, in the light of the analysis undertaken in Part IV.

We may conclude, then, with respect to the broader question of values versus prices, that there is apparently a great gulf between them, even though they be ideally construed instead of merely in market terms. There is a definitely conceivable parallelism between prices and costs, and the best construction we can give to utility makes it correlative with value. But there seem to be no other definite correlations here, whether between human utilities and prudential costs or between values and prices.

SECTION 146. MARKET AND PROGRESS PHASES OF VALUE

There is left, however, the point at which values and prices touch, and that is in the market. This point of contact may be examined further, in which connection we have certain excellent suggestions in the writings of Charles H. Cooley, already referred to.

In our historical review, we observed certain institutional developments of the market which make it a quite inadequate-expression or measure of equitable or effective prices. These Cooley recognized. Concerning present-day prices, he wrote:

Let us notice, in the first place, that the pecuniary values of today derive from the whole past of the pecuniary system, so that all the wrongs that may have worked themselves into that system are implicit in them. If a materialized ruling class is in the saddle, this fact will be expressed in the large incomes of this class and their control not only of the mechanism of the market but, through prestige, of the demand which underlies its values. If drink, child labor, prostitution, and corrupt politics are part of the institution, they will be demanded upon the market as urgently as anything else. Evidently it would be fatuous to assume that the market process expresses the *good* of society. The demand on which it is based is a turbid current coming down from the past and bearing with it, for better or worse, the outcome of history. All the evils of commercialism are present in it, and are transmitted through demand to production and distribution. To accept this stream as pure and to reform only the mechanism of distribution would be as if a city should draw its drinking-water from a polluted river and expect to escape typhoid by using clean pipes. We have reason, both in theory and observation, to expect that our pecuniary tradition, and the values which express it, will need reform quite as much as anything else.³

³ "The Sphere of Pecuniary Valuation," *American Journal of Sociology*, Sept.,

Cooley pointed out, however, that the market, despite its limitations and imperfections, provides "a universal medium of communicative growth" with respect to values, for, through it, certain phases of value are, so to speak, translated. In this connection, Cooley sometimes used the phrase "common measure" for "common medium" and the term "values" (as above) where the expression "phases of value" would have been more precise. But from the context and the emphasis upon institutional limitations, it is quite clear that what he had in mind here is not an accurate measure of values through prices but rather the partial translation of various aspects of value by being passed through a common price medium. There is an important fundamental difference between the two ideas as we have seen.

This market translation of various phases of value is quite extensive. Nor should it be confined merely to the "coarser and more material values." Even though love, beauty, and righteousness come upon the market only in an incidental way and "remain for the most part untranslated," they nevertheless at times do touch the market and thus, as between them and more material values, no sharp line of demarcation can be drawn.

Cooley went on to say, in fact, that no sharp line should be drawn. The more the higher values are put upon the market, the better will life be as a whole. "Our line of progress lies, in part at least, not over commercialism but through it; the dollar is to be reformed rather than suppressed."⁴

What this reform of the dollar would appear to imply, in terms of equitable and effective prices, we have already had occasion to examine. The more the price aspects of value are made conformable to prudential costs and the more an equitable and effective price system is realized, the more desirable it would seem that higher values be made translatable into market prices.

SECTION 147. TOWARD SCIENTIFIC ECONOMIC THOUGHT

We thus bring this phase of our analysis to a close. The most significant conclusion of this chapter appears to be the recognition

1913, pp. 193-194. Cf., also, chap. xxvi, above, and other references there to the writings of Cooley.

⁴ Cf. *ibid.*, pp. 189, 190, 195-197, 202-203.

that, although we may assume a correlation between prices and costs and between values and utilities, none can be assumed between prices and values, that is, there is no parallelism between them. Here we reach a definite divide, and from it we must apparently take our start, if we are to build a realistic and rigorous structure of economic doctrine. Whatever scientific virtue there may be in modern price economics, it lies just here; in such economics the time-honored confusion between values and prices seems to have been definitely foresworn.

The analysis undertaken in preceding pages of this volume indicates that the scientific approach to economic questions should, in general, be as follows:

(1) We should study the system of prices as a thing in itself, not because it stands apart and is unrelated to anything else, but because of the necessity of understanding it as it is, divorced from false theorizing with respect to value.

(2) We should analyze the demand and supply phases of price, not merely from a superficial market point of view but more particularly from the point of view of broader price aspects, aspects that cover, on the one hand, willing, able, obliged, and accustomed to pay prices, highly mediated by diverse incomes, desires, and habits, and, on the other hand, prospective money costs that are conditioned by entrepreneurial expectations regarding selling prices.

(3) We should supplement the analysis of competitive or normal market price, not only with a study of monopoly price as is usually done, but also with a study of administered price and with fair, just, and effective price.

(4) We should take into account the important fact that fair or effective price under modern conditions is not simply a matter of dealing with individual situations but, more significantly, of establishing and maintaining constructive balances between the major groupings of the modern economic system.

(5) We should, in developing these broader balances, find ways and means, particularly, of maintaining production and consumption in constructive equilibrium and of establishing a system of prices that will depend less upon the momentum of medieval tribute-rendering conditions and the uncertainties of speculation in futures,

and more upon prudential money costs of production and a fairly invariable purchasing power.

(6) We should focus attention, in studies of the market and price system, upon the important concepts developed in Parts V and VI of this volume, concepts such as: income, credit, volume of monetary payments, and wealth; production or capital goods and consumption goods; money income, productive and total aggregate income, nominal and real per capita income, functional and class distribution of income, relationship of various income concepts to economic progress; the capacity of people to consume; consumptive expenditure and savings within a given time period; credit creation and cancellation; the flow of monetary payments through business concerns to the ultimate consumer and of savings into capital markets; total business financing, net new financing, and net productive financing; direct financing and financing through investment channels; investment and savings, good and bad use of savings; capital formation and consumer demand; economic wealth and its distribution, national economic wealth in prosperity and depression, national wealth-producing capacity; corporate dominance over economic life; major controls over income, employment, and profits; the expected versus the realized; prospective yields; equilibrium economics; the marginal efficiency of capital; capital as goods, funds, and capitalization; transactions, precautionary, and speculative demand for money; coined or paper money versus deposit or credit currency; loan and investment funds; monetary resources versus borrowings; inducements to invest productively; easy money and the determination of interest rates; partial versus full employment; the classical versus the scientific approach to economic problems.

At the same time, it seems also important for constructive theorizing that the economist should be familiar with the modern philosophical, psychological, sociological, and anthropological bases of value, to the end that pecuniary phases may be the better understood and that the lack of concordance between values and the price system, no matter how ideally the latter is conceived in terms of prudential costs or effective balances, may be the more completely appreciated.

From a scientific point of view, there are thus indicated two separate approaches to economic questions, both important, the price approach and the value approach; and these must not be confused one with the other. We have endeavored, in foregoing chapters, to clarify certain important elements in these approaches. In Part I the virtue of rigorous definition of basic concepts was emphasized. In Parts II and III it became obvious that we must abandon medieval dialectic and must build upon solid modern foundations, if we are to get anywhere in constructive economic analysis. In Part IV a modern foundation for value theory was found in human interests, judgments, instincts, and habits, rather than in schematized propensities or rationalized choices. In Part V a tribute-rendering market and price system was disclosed, arising out of a long process of institutional development, and a cross-sectional view of this system was presented as it exists today in the United States. In Part VI the virtue of our preceding analysis was tested in the light of contemporary critical writings. Out of it all emerged, finally, a sharp division between the price approach and the value approach in economic analysis.

With a rigorous preliminary understanding regarding prices and values, it may be confidently anticipated that a science of economics can be constructively formulated, along lines such as those suggested in Part I of this volume.

CHAPTER XXXV

IN CONCLUSION

IN BRINGING this book to a close, there is probably little that need be added to what has already been discussed in preceding pages except to emphasize the fact that the present volume aims to provide an exploratory basis for a more realistic approach to social science principles in general, even though the major portion of it has been devoted to a ground-clearing analysis of modern economic theory. Such a procedure has seemed desirable for several reasons: First, what are called economic principles are still widely taught in our colleges as an introduction to courses in sociology, largely because of the rigor with which the structure of economics has been developed and because of the assumed preliminary mental training it provides for critical thinking in other social disciplines. Since, however, the major portion of this structure apparently remains medieval or merely pseudoscientific, it seemed essential that its fallacies and inadequacies be clearly delineated. Secondly, in the process of thus critically analyzing modern economic thought, opportunity is probably best afforded for that very training in rigor and logic which is so important for any realistic and scientific approach to social problems in general. Thirdly, the analysis of economic theory and practice provided in this volume encompasses much more than the traditional approach. Materials have here been drawn from modern logic, psychology, anthropology, the philosophy of value in general (which would seem to be basic for all the social studies), and from the history of the unfoldment of scientific knowledge leading up to what Perry has designated as a "general science of human life." This general science, as has been noted, he regards as typical of scientific development "in its culminating phase," borrowing "both the results and the techniques of the special sciences of human life," profiting "by what biology, psychology, and the new social sciences have learned about man," and employing in

its own behalf the genetic, comparative, analytical, and descriptive methods which they have successfully exemplified."¹

The whole of Parts I and IV of the present study is devoted to this broader "genetic, comparative, analytical, and descriptive" social-science analysis, as are also portions of Parts II, III, and V, especially Chapters XIV, XIX, XX, and XXVII, and in addition Chapter XXXIV of Part VI, which has just been concluded. So far as summary statements are concerned, these have already been given as the analysis has proceeded: at the end of Part I, in Section 22; at various points in Parts II and III, in Sections 40, 50, and 69, and in Chapter XXI at the end; in Part IV, in Sections 95, 99, and 103; in Part V, in Sections 115 and 126; and in Part VI, in Sections 131, 137, and 141, and more generally in Chapter XXXIV. More complete summary-digests of the first four parts have been published by the author elsewhere.²

SECTION 148. CURRENT TENDENCIES

That there is a real need for broader analyses of social science principles seems clearly indicated in certain recent tendencies in university research, in the establishment of special institutes, bureaus, and councils, dealing with particular or more general phases of social or human relations and problems, in the character of the problems discussed at recent annual meetings and special conferences, and in the publication of such volumes as Keynes's *General Theory of Employment, Interest, and Money*, the books and reports of the Brookings Institution, the National Bureau of Economic Research, The Twentieth Century Fund, or the Social Science Research Council, or Robert S. Lynd's *Knowledge for What*,³ all of which have resulted and continue to result in widespread interest and discussion. Such developments depict the temper of the times and the felt need among specialists in the social studies and among others for a broader and more constructive understanding of fundamentals in grappling with current problems.

¹ Perry, *General Theory of Value*, pp. vii, 11-13.

² Cf. citations in Preface, above.

³ Princeton, 1939. Cf. an excellent review of this book by Richard H. Shryock, in the *Educational Outlook*, Jan., 1940.

At the December meetings held in 1939 to celebrate the tenth anniversary of the dedication of the Social Science Research Building at the University of Chicago, the character of the program and the differences of opinion that developed in the round-table discussions may be taken as typical examples of what is in the air with respect to these current tendencies. Surveys of research covering the past decade were presented and these laid emphasis upon current social problems, upon the virtue of combining several related disciplines in efforts at more constructive research with respect to such problems, and upon the need for developing more adequate social science techniques as in the method of factor analysis employed by Thurstone. The round tables dealt with such questions as whether or not the social sciences are one or many, the need for better training in social-science research, social science versus social action, the problem of generalization, and the quest for precision in the social sciences. All of these subjects, it will be recalled, are discussed in detail in the preceding pages of the present volume.

The marked differences of opinion among the specialists participating in the round-table discussions at the Chicago meetings are indicated in the Proceedings. Conflict of opinion is of course a wholesome sign of progress, but it may also demonstrate, as in the present instance, the inchoate character of much of current social theorizing and the need for further study and understanding with regard to fundamentals.

As illustrative of the type of insistent round-table questions upon which considerable difference of opinion centered at these meetings, and as helping to focus attention still further on the kind of fundamental social science problems that keep projecting themselves into present-day discussion, several important questions have been selected, among many, and are given below, together with what might be regarded as relevant points of view respecting them in the light of the social science principles developed in preceding pages.

1. *Should quantification in the social sciences proceed wholly from the point of view of ordinary "extensive" measurement or are there other quantification criteria of even greater importance here?*

It was as a result of developments in modern physics, biology,

and psychology that the distinction between primary, secondary, and tertiary qualities or levels of analysis was advanced. From the quantitative point of view, the first or "extensive" level may be called the primary physical-science level of extension, form, and time. The second or "intensive" level may be designated the bio-psychological level dealing with degrees of difference within "subjectively" perceived qualities such as sound, color, taste, or smell. The third or "distensive" level may be called the psychosocial level covering relational differences among such qualities as desires, interests, judgments, and values.⁴

As social scientists, we must, it appears, develop new quantification techniques, so that we can advance from the primary and secondary levels of analysis to the tertiary level, where we may finally be able to appraise more accurately and directly the uniquely complex characteristics of human nature and society. It is, of course, important for social science that we continue asking questions of nature on the primary level of extension, form, and time, but until we can progress through the secondary level to the tertiary and can formulate scientific questions there, it would seem that we still have our most important quantification problems ahead of us. For, it may be repeated, no attempted reduction of complex social interrelations and values to physical or physiological terms, be their observation and quantitative appraisal on these lower levels ever so carefully carried out, will apparently bring us one whit nearer either to the observation and testing of all-important cultural aspects which are thus omitted or to a more rigorous theoretical analysis of basic social variables as such.

2. *Is the "time" factor the same in the social studies as in the natural sciences, or is it different?*

In the social studies we deal with relatively short periods, if we contrast historical time with geological or biological time in terms of cosmic or organic evolution. If, for example, we compare man historically with his father or grandfather, we get considerable resemblance or constancy; but if we compare him with some prehistoric ancestor that preceded the anthropoid in the scale of evolution, we get little if any resemblance. We get decided variation

⁴ Cf., also, pp. 15-16, 23-29, 304-307, above.

or change. Viewed in their proper frames of time reference, the material universe probably shows about as much change as human society does. It might be added, of course, that, while man has had no influence to speak of upon cosmic or organic change, he has apparently had considerable influence upon social change, a rather significant distinction, it would seem, for social science as compared with physical and biological science.

3. Should normative considerations have a place in social science or are they contra-indicated here as in natural science?

It is repeatedly insisted that we should not be concerned about doing "good" in the social studies. And yet it should also be borne in mind here that there is what seems to be an essential difference in this respect between the social studies and the natural sciences. In the social realm we are continuously doing "good" or "bad," not in our investigations necessarily, but as active agents who are constantly changing the social structure as such. We make governmental rules and regulations, for example. We pass laws, municipal, state, and federal. And, thus, in these and in many other respects, we are shaping and reshaping the social order itself. We make the social facts as we go, and we do not do that in the natural realm, except in technology.

It is true that we make airplanes and automobiles, but we should not be thinking here of technology. We should be thinking rather of the basic structure of the material universe, of the astronomical relations between the planets, the physical relations in mechanics, the interaction of the elements in chemistry, the constitution of the geological world, the genesis and evolution of the biological organisms with which we have contact. These are not changed by our being in the world in the sense that we have any power to change the laws governing them. But in being in the world (in historic time), man has originally created the social order itself, and he has since repeatedly changed its essential constitution.

What we investigate in the social realm is something much more flexible and unpredictable than in the natural realm. And that is why history shows certain social laws and relations to be true at one time, as under feudalism, and not true at another time, as under capitalism.

In physical and biological science we can confidently predict what is to happen as soon as we have ascertained the laws governing a certain set of natural phenomena, such as Kepler discovered with respect to planetary motion. But in the social studies we have no such extensive power of prediction. At the same time, if man does have power to change the social order itself, then what is "good" or "bad" for society becomes a legitimate branch of social study. Ethics and normative standards are thus significant for social science, whereas they may have no place in physical and biological science.⁵

SECTION 149. MODERN PSYCHOLOGY AND SOCIAL STUDY

Unsettled questions having to do with quantification, time ranges and social change, normative standards and historical predictability are but a few of the many insistent current problems which would appear to require further clarification before social study can mature into social science. Consideration of such problems, moreover, leads us immediately into special fields which in the past have too often been neglected in dealing with social science principles. If, for example, we are to understand quantification problems dealing with so-called secondary and tertiary qualities, or human drives and aspirations and ethical ideals for society, or other complex characteristics of human nature and thus of society, we must understand something of what psychology, history, and the special social disciplines have to offer.

Some of the social science principles upon which, it would seem, a reasonable degree of agreement may already be reached are given in the present volume. Still other principles might have been included if we are to regard social science realistically as a "general science of human life," the culmination of scientific development throughout the ages, and the embodiment at basis of what psychology, history, and other related disciplines have to contribute.

It would be beyond the scope of the present book to include these wider contributions in any detail, especially since they have already been adequately covered in a number of modern treatises.⁶ At the

⁵ Cf. *The Seven Seals of Science*, pp. 424-427; also, pp. 10-11, 17-20, above.

⁶ Cf. references on social science in selected bibliography at the end of the present writer's *The Seven Seals of Science*; also, the last two chapters of that volume, in

same time, a broad outline of such contributions, with particular emphasis upon current problems and tendencies, may guide the student in his further readings. In schematic form, such an outline is thus attempted in this and in the remaining section.

(1) *Subject matter and major problems of modern psychology.* Relationship between states of consciousness, mind, and behavior; sensation, nervous system, organs of sense; evident dependence of psychology upon biology.

(2) *Rise of experimental method in psychology.* Contributions of physics and physiology; the hypothesis of psychophysical comitance; its present-day importance as opposed to crass behaviorism.

(3) *Beginnings of psychopathology.* Hypnosis as a method of diagnosis and treatment of certain nervous and mental ailments; revolutionary disclosures through psychoanalysis point the way for a more complete future exploration of the so-called "subconscious."

(4) *Genetic and statistical approaches in recent studies of animal, savage, differential or variational, and child behavior.* Additional important evidence as to the original or inherited nature of man, as to the order of its development from birth through adolescence, and as to adult expression through mastery of environment and the development of social relationships.

(5) *Future prospects in psychology as bearing upon progress in the social studies.* Need for further developments along the lines mentioned above; the psychologist must assist the sociologist in answering the question of the possible inheritability of acquired mental and social characteristics; other important unsolved problems for both the psychologist and the sociologist center upon certain seeming dualities in nature, such as those expressed in the contrasts between matter versus energy, the inorganic versus the organic, living matter versus the mind, determinism versus free will; some of these apparent dualities are reconcilable in the light of modern scientific knowledge; possibly the problems of living matter versus

which such broader fundamentals are described in some detail. Cf., also, *The Study of Society: Methods and Problems*, ed. Bartlett, Ginsburg, Lindgren, and Thouless (London, 1939).

the mind and of determinism versus free will, both of them important for the establishment of social science fundamentals, may in the end prove to be equally reconcilable; upon such possible reconciliation may depend a more complete understanding of the essential relationships between the natural sciences and the social studies.⁷

SECTION 150. SOCIAL SCIENCE IN THE MAKING

Among the major questions and problems with which the student of the social sciences should be familiar would seem to be the following:

(1) *Contemporary problems.* Why has there been such apparent halting social progress as compared with the phenomenal rapidity of recent material progress? Technological physical science advances in the last century have in general brought about a considerable metamorphosis in man's habits of living. They have made themselves felt in marked changes in industry and government, in higher standards of living, in the spread of nationalism, democracy, and popular education. But these advances have also brought new social difficulties. With nationalism, has come arrogant imperialism; with democracy, alleged widespread corruption and inefficiency; with industrial progress, the greatest wars of all time and important political upheavals in Russia and Germany. Certain insistent social problems seem to remain untouched despite material advance, such as those surrounding politics and mechanized industrialism, population pressure, the modern family, law and law enforcement, religion and morals.

(2) *History of efforts to solve social difficulties.* In ancient Greece and Rome; during the Dark Ages and in the medieval period; during more recent centuries; in ethics, government, religion, and social philosophy; in scientific discovery and geographical exploration and their effects upon industry and trade; in the development of classical economic theories and later of radical movements such as socialism and communism. Is it true that for thousands of years brute force and intrigue have been dominating factors in human affairs and that science has only recently made any substantial, even though in some respects still futile, inroads upon them?

⁷ Cf. pp. 17-19, above.

(3) *Development of sociology and social theory in recent times.* Beginnings of sociology with Comte, Spencer, and Ward. Modern schools of sociology, economics, politics, jurisprudence, ethics. Relation of these special social disciplines to sociology. Possibility of further rapid advance in human affairs and in social theory through the influence of natural science.

(4) *The road to social progress.* Is there a better road than the muddling of the past twenty centuries? Two signposts may point the way: one, the realization that society is not in essence a "natural" but rather an "artificial" creation and that it has been constructed and can be reconstructed by human effort; the other, the suggestion that, to be scientific and well ordered, social reconstruction must depend upon advances in the natural sciences, especially in geology, biology, and psychology. Steady social improvement, not destruction, should be the touchstone. And a fuller knowledge is apparently required of history, contemporary problems, and realizable ethical goals. To achieve these ends in the spirit of modern science, the present writer has in another connection made some suggestions which, in conclusion, will bear repetition here.

We should remember that it is not only through observation and experiment but also through speculative hypothesis that scientific progress has come. The two extreme schools of thought represented by Aristotle and Plato among the ancients and by Bacon and Descartes in the scientific renaissance, are still with us. One group of thinkers has its nose close to the grindstone of facts and scoffs at all such attempts to explain obvious mysteries as vitalism or telepathy. Intoxicated by the achievements of physical science, it sees mechanism, materialism, and determinism everywhere. On the other hand are those who continue to evolve "solutions" to social problems "out of their inner consciousness" regardless of scientific fact. The social fields are encumbered with "specialists" who do little more than spin endless webs of ever more tenuous theories out of what some one else has dogmatically stated. Both types of extremists paw the treadmill of the past, one group satisfied with what facts have already been adduced, the other missing the facts completely but enamored of the written word.

It behooves us to steer a middle course between these extremes, neither failing to keep our feet firm upon the ground of indisputable fact nor fearing to raise our heads aloft into the free air of speculative hypothesis. There are innumerable questions of vital import

before which science as yet stands helpless. It may never be able to provide satisfactory answers to all our problems. Shall we give up our beliefs and theories about them because some physical scientist, perhaps eminent in his particular field, sees everything in terms of his own narrow hobby? He also has plenty of beliefs, even in the very specialty he endeavors to make the measuring-rod of all the mysteries that lie outside. The only intellectual crime we can commit in this connection is to hold our beliefs so dear that we refuse to change them in the face of contrary fact. With a free and forward-looking point of view and an understanding of what science has already achieved, humanity stands ready to move consistently forward along the road of social progress.⁸

⁸ *The Seven Seals of Science*, pp. 429-430.

INDEX

INDEX

- Abstinence (*see* Waiting and Time), 126, 132, 145
Abstraction, in value theory, 173
Alternative-use doctrine (sophistry), 91 ff., 100, 113, 120-122, 126, 142, 145-147, 151-154, 158, 170-173
Analogies, 13 ff.; anthroporacial, environmental, and evolutionary, 13; false (*see* Fallacies) 15; mechanistic (*see* Mechanism), 13, 236 ff., 494; organicistic (*see* Organicism), 13, 274, 494
Analysis, 4-7, 12, 17, 20, 22, 28-29, 32-33, 71; deductive (*see* Deduction), levels of (*see* Qualities), 66-68, 304; rational (*see* Rationalism), 6, 12; raw 11, 15; rigorous, 12, 371
Anderson, B. M., Jr., 271 ff.
Anthropology, 110, 113
Anticipations, 482 ff.
Apologetics, in economic theory, 363 ff., 376
Approximations, in income statistics, 396
Aristotle, 22, 24, 87, 103
Ashton, T. S., 466-467
Astronomy, 5, 9, 14
Attention, 37
Austrian School (*see* Utility and Classical theory), 91, 103, 122, 127, 140, 155-156
Bacon, Francis, 22, 24, 61-62, 88
Balance between consumption and production (*see* Equilibrium)
Banking, commercial, 406 ff., 453; facilities, 386
Barcelo, A. P. y., 233
Barter, 111, 226 ff., 342 ff.; primitive, 111
Behavior (ism), 20-21, 29, 36, 42-43, 55, 79, 99, 224, 283-284, 315 ff.; experimental, 316 ff.
Below, Georg von, 59
Bentham, Jeremy, 232
Berkeley, George, 232
Biology (*see* Methodology), 5, 8-15, 42, 83, 237
Bloomfield, Meyer, 69
Boas, Franz, 46-47
Böhm-Bawerk, Eugen von, 132, 136, 191
Boyle, Robert, 88
Brookings Institution, 439 ff., 462 ff.
Bryce, James, 73 ff.
Burgess, Ernest W., 53
Burns, Arthur F., 439 ff.
Bury, John R., 66
Business, modern, 365 ff., 383 ff., 387 ff.
Business cycles, 55-56; historical studies of, 390 ff.; statistical studies of, 392 ff.; theory of, 376, 383 ff.
Cairnes, John E., 107, 126, 135, 150
Capacity, plant, 444
Capacity to produce, American, 441 ff.
Capital, 104, 109-116, 120-121, 133, 136, 141, 408; as capital goods, 408, 506 ff.; as capitalization, 507 ff.; definitions of, 452 ff.; in terms of money or funds seeking investment, 507 ff.; marginal efficiency of, 472 ff., 506 ff., 531; mechanical views of, 200 ff.; prospective yield of, 506-508, 527; formation, United States, 408 ff., 450 ff., 464; gains 456 ff.
Capitalism, 244
Carey, Henry C., 232, 235
Carlile, William, 163
Carlyle, Thomas, 130
Case studies, 23, 55, 71
Catlin, G. E. G., 76
Causation, 68
Census, 396
Chance, 50
Chapin, Francis S., 66 ff.
Chase, Staurt, 422
Chemistry, 5, 9, 14, 88
Choices, 312 ff.; capricious, 314 ff.; deliberate, 314 ff.
Circulating medium in the United States, 405, 520 ff.; monetary metal, 521; Federal Reserve currency, 521; deposit currency 404, 521
Clark, John Bates, 87, 91, 129, 197 ff., 203-209, 236, 243
Clark, John M., 271 ff.
Classical theory, 85 ff., 485; rationale of, 254 ff.; shortcomings epitomized, 255 ff.
Classicism, 468, 473 ff., 478 ff., 515; neoclassicism, 264 ff., 468
Coe, Virginius, 466
Commensurability, lack of in utility and disutility, 192 ff.
Communism, 244, 467 ff., 475 ff., 486, 502, 517, 537
Competition, 104, 105, 109, 121, 189 ff.; free, open, unrestricted, 126-127, 129, 135-136; obstructions to, 191 ff.
Comte, Auguste, 40 ff.
Concepts, 12, 14, 29, 33-34; basic, 8-12, 15-18, 56, 71 ff., 84, 475, 553 ff.; economic, 434; genetic and physiological, 12; raw, 53; scientific, 36; superficial and vague, 54
Conjecture in income statistics, 396
Conscious deliberation in economic behavior, 225
Consumer's surplus, 202 ff.

- Consumption, 140, 153, 162, 385, 402 ff., 487, 534 ff.; capacity of the masses for, 486 ff.; demand, 411, 423; expenditure for, 401 ff., 461, 504; function, 487; rate of, 160
- Consumption-investment balance (*see Equilibrium*), 487
- Control, public (planned), 11, 23, 29-30, 70, 100, 381, 433, 479, 493, 495
- Cooley, Charles H., 100, 550 ff.
- Corporations, 387-390, 430 ff.; employment, income, profits, 427 ff.
- Correctness, in comparative value, 311 ff.
- Cost and utility theory, suppositions underlying (*see Classical theory*), 189 ff.
- Cost economics, 112
- Cost elements, 144
- Cost rigidities, 496
- Costs, 96 ff., 105 ff., 122, 127, 132, 145, 150, 155, 351, 548 ff.; measure of, 94; objective or money, 106-109, 119-122, 125-126, 137, 142-143; original or past, 106, 137, 141, 154; prudential, 106, 137; reproductive or present, 106, 137, 154; subjective or real, 97, 106-109, 119, 122, 125-126, 129, 137, 142-146, 149, 154; summary and conclusion regarding, 254 ff.
- Cost theory, 108 ff., 124 ff.; Austrian criticism of, 132 ff.; present status of, 144 ff.; rise and decline of, 124 ff.
- Culture (*see Society*), artificial and natural, 30 ff.
- Cumulative change, 200 ff.
- Currency (*see Circulating medium*)
- Customs, 100, 179, 219; prejudicial, 496
- Cycles, business (*see Business cycles*)
- Davenport, H. J., 122, 146, 170 ff.
- Deduction (*see Analysis*), 3, 5, 22, 54
- Degrees of intensity, 304 ff.
- Demand, 145, 149, 151, 157, 164, 191 ff., 543 ff.; fluctuations in, 178; individual, 166, 169; market, 166, 169; opposing, 94
- Demand curves, 158-159, 164 ff.
- Democratic control, 433
- Depression, 428 ff.
- Descartes, René, 22, 24, 231
- Description (*see Analysis*) 7, 12
- Desires, 30, 166; conflicts of, 177; intensity of, 176; shadow, 173; unequal, 169
- Determinism, 19
- Dewey, John, 100
- Directorates, interlocking, 431 ff.
- Dispersion, of American corporate stock holdings, 425, 433
- Distension, in comparative value, 304 ff.
- Distributive acquisition, 197 ff.
- Disutility (*see Utility*), 189, 192 ff., 220, 225, 228-229, 288
- Dogmatic procedure in economic theory, 89
- Dualism(s), psychophysical and epistemological, 25
- Duration, in comparative value, 298 ff., 308 ff.
- Dynamics, 198 ff., 235
- Ebbinghaus, H., 44
- Eclecticism (*see Value theory*)
- Economic conditions, modern, 546 ff.
- Economic controls in the United States, 429 ff.
- Economic fundamentals, historic and contemporary, 341 ff.
- Economic importance, 168
- Economic institutions, and economic theory, 377 ff.; development of, 341 ff.
- Economic problems, current interest in, 465 ff.
- Economic progress, United States, 439 ff., 458 ff.
- Economic theory, 87 ff., 102 ff., 467 ff.; more modern view, 262 ff.; psychological fundamentals of, 482 ff.; summary, 377 ff.
- Economic thought, scientific, 551 ff.
- Economics, 3, 9-17, 77
- Elliott, W. Y., 74 ff.
- Elliston, H. B., 466
- Ellsworth, P. T., 510 ff.
- Emerson, Ralph Waldo, 130, 323
- Emotion, 30, 37
- Empiricism (*see Observation and Systems of thought*)
- Employment, full, 464 ff., 478 ff., 487, 536 ff.; increased, 532 ff.; partial, 479 ff., 534; quantity of, 497 ff.; wage-units, 497 ff.
- Environment, 14-15, 48, 55
- Equilibrium, between consumption and production, 430, 461, 470 ff., 496, 536 ff.; conditions of, 496; constructive and obstructive, 495 ff.; deliberately planned, 493 ff.; fixed or moving, 491 ff.; mathematical, 489 ff.; mechanical, 490 ff.; normative, 495 ff.; of economic forces, 235; organismic or evolutionary, 492 ff.; pendulum theory, 492 ff.; periodic lack of, 546 ff.; stable and unstable positions of, 472 ff., 496 ff.; underemployment, 479 ff., 483, 489, 495 ff., 537 ff.
- Equilibrium economics, 471 ff., 484, 488 ff., 537 ff.; and business cycles, 492 ff.
- Ethical ideals or criteria, 11, 29-30, 74, 544
- Euclid, 87
- Evidence (*see Methodology*), 64, 71 ff., 84; social 73
- Exchange, 111, 114, 120, 152, 221 ff., 244; development of, 347 ff.; forced,

- 111, 341 ff.; formal, 111; free, 341 ff.; gift, 111
- Exchange ratios and rates, 272 ff.
- Excitations (*see* Sensations)
- Expectations and realizations, 479, 482 ff., 486 ff.
- Expenses, money, 129, 145, 169
- Experimentation (*see* Observation), 87, 317; cosmic and human, 18-19
- Extension, in comparative value, 304 ff.
- Ezekiel, Mordecai, 49, 83
- Fairs, 348 ff.
- Fallacies, (*see* Analogies), 90, 112, 120, 147, 152-153, 163, 185, 234, 237-238; mechanistic and organic, 494
- Faris, Ellsworth, 30
- Fashion, 244
- Fay, S. B., 60, 64, 66
- Fetter, Frank A., 129-131
- Financing, direct, 455; business, 507 ff.; investment, 455 ff.; net new, 455 ff.; net productive, 455; total, 455 ff.
- Fisher, Irving, 88
- Folkways, 44, 47, 51
- Fortunes, large, 432 ff.
- Franklin, Fabian, 466
- Geology, 5, 9, 14, 48
- George, Henry, 130
- Generalization (*see* Analysis), 5, 15
- Gestalt, 41
- Giddings, Franklin H., 129
- Gift-giving, 111, 342 ff.
- Gilbert, William, 87-88
- Goods, economic and free, 181 ff.
- Government (*see* Political science)
- Green, David I., 92, 122, 132 ff.
- Habit, 284
- Handman, Max, 60 ff.
- Hansen, Alvin H., 466, 478 ff., 481 ff., 486 ff., 495
- Hardy, Charles O., 466, 476 ff.
- Harrod, R. F., 471 ff., 489, 495, 506
- Hedonism, 98, 197 ff., 204, 207, 218, 230
- Hedonistic calculations, 235
- Henderson, H. D., 466
- Herbart, J. F., 232
- Heredity, 14-15
- Hicks, J. R., 473 ff., 489, 495, 506
- Hoarding, individual and institutional, 513 ff.
- Hobbes, Thomas, 231
- Hobson, John A., 47, 80 ff., 87, 91, 302-304, 319
- Holding of funds (*see* Hoarding)
- Homan, Paul A., 87, 91
- Homogeneity, 148, 152, 189 ff., 288; lack of, in utility and disutility, 153-154, 192 ff.
- Human nature, 11, 20; basic concepts, dispositions, and primal instincts, 41-42, 46, 50, 74, 84; tendencies of, 99
- Hypothesis (*see* Analysis), 11, 101, 112, 114, 317
- Idealism, 282
- Imagination, 37
- Imitation, 244, 284
- Impulses, 30
- Inclusiveness, in comparative value, 298 ff., 308 ff.
- Income (money), 100, 109, 483, 500 ff.; aggregate, 397, 502-504; concentration of, 429; consumer, 422; differing, 166, 169-171, 195-196; distribution of, 439 ff.; in Great Britain, 192; of the American people, 385, 396 ff., 415; productive 397, 502; real per capita, 398; use of American, 396 ff.
- Induction (*see* Observation), 5, 54, 89
- Inference, 6, 17
- Individualism, 251
- Instinct, 42, 284
- Institutional economics, 206 ff.
- Institutional forces, 219
- Institutional settings, 179, 219
- Institutionalism, 209
- Intelligence, 14-15
- Intensity of desire or interest, 298 ff., 304 ff., 308 ff.
- Interest, 476; rates of, 464, 472 ff., 479-480, 500, 510 ff., 531 ff.; theory of, 464, 471, 485, 509 ff.
- Interests (*see* Desires), 37, 100, 116, 279, 284; and cognition, 289 ff.; acquisitive or possessive, 167-168; biological and physiological analysis of, 284 ff.; complexes and integrations of, 291 ff.; consumptive, 167-168; genesis and mutations of, 294 ff.; interacting, 296; modes and varieties of, 287 ff.; progressive, 296; qualitative characteristics of, 317 ff.; recurrent, 296
- Interviews (*see* Evidence)
- Introspection (*see* Analysis), 21, 24-25, 283-284
- Invest, inducement to, 482 ff., 532 ff., 537 ff.
- Investigation (*see* Analysis)
- Investment, 476 ff., 499 ff., 502 ff., 509; general, productive, and unproductive, 532 ff.
- James, William, 284
- Jevons, William S., 77 ff.
- Johnson, William E., 304-306
- Judgments, 37, 280 ff., 233, 289-290, 312 ff.; fallible, 482 ff., 485; moral, 100
- Keynes, John M., 465 ff.

- Kind, differences in, 304 ff.
 Klein, Philip, 72
 Knight, Frank, 77 ff., 476 ff., 489, 500
 Kroeber, Alfred L., 66 ff.
 Kuznets, Simon, 493 ff.
- Labor, 103-104, 107-110, 113-115, 119, 132-133, 141, 147, 151-152; and time or waiting, 119, 154; commanded, 110 ff., 143, 151-152; division of, 229; embodied, 110 ff., 126, 143, 151-152; immediate, 116; interchangeable units of, 114, 120-121; natural, 112; pain or effort, 97, 107, 145, 148; past, 116, 133, 136; physical units of, 477; quantity of, 97, 105, 111, 116, 138; skilled and unskilled, 115
- Laird, John, 300, 314
- Laissez faire, 109, 246 ff., 372 ff.
- Land, 109-110, 113, 116-117, 120-121
- Landauer, Carl, 476 ff.
- Lasswell, H. D., 74
- Law(s), 3, 9, 68-69, 75, 84; fixed, 18; natural-science, 18-20, 69, 246 ff.; photographic, 69; social or cultural, 18-19, 66 ff.
- Liquidity preferences, 477-479, 482 ff., 510 ff.
- Living standards, American, 423
- Loan and investment funds, 512, 520 ff.; cyclical changes in, 529 ff.; demand for, 526 ff.; double counting in, 524; supply of, 523 ff.; use of, 519 ff.
- Logic, 233; syllogistic and scientific, 24
- Long-run changes, 153, 483, 490 ff., 501
- McCulloch, John Ramsey, 109, 116-118
- McDougall, William, 42 ff.
- Macfarlane, Charles W., 191
- Macvane, Silas M., 92-96, 107, 132 ff., 227
- Magnitudes, distensive, 308 ff.; extensive, 304 ff.; intensive, 308 ff.; qualitative, 310 ff.; quantitative, 309 ff.
- Malinowski, Bronislaw, 46
- Malthus, Thomas R., 109, 113 ff., 120
- Management, 121; predatory 111
- Margin(alism), 128, 186, 154-159, 162 ff. 204, 207; futility of, 217 ff.; inadequacy of, 214
- Markets, 228; retail, 352 ff.; wholesale, 351-352
- Marshall, Alfred, 87, 91, 150, 162, 189, 192, 212, 492
- Marx, Karl, 112, 130
- Mathematics (*see* Methodology), 9, 13-14, 88, 100, 231
- Means, Gardiner, 426
- Measurement (*see* Methodology), 6, 17, 148, 174, 195, 304 ff., 557 ff.; homogeneous units of, 95; might-have-been method of, 94 ff., 122; proportionality concept, 171; qualitative, 301 ff., quantitative, 298 ff., 320 ff.; unique differences in kind, 302 ff.
- Mechanism (*see* Analogies), 98, 275, 276; criticism of, 233 ff.; economic applications, 235
- Medieval economy, 352 ff., 365 ff.
- Memory, 37
- Mental phenomena (*see* Psychology)
- Mercantilism, 371 ff.
- Methodology, 20-22, 37, 50, 87 ff., 282; biological, 10, 34 ff., 83; evidential (*see* Evidence), 55; exact, 14, 18; genetic, 8, 42 ff., 55, 83; historical, 50 ff., 74, 83; inexact, 18; mathematical, 17, 23, 39 ff., 50 ff., 83; natural science, 22-23, 39 ff.; objective, 23 ff.; physical science, 10-11, 23, 34 ff., 38, 50-51, 60 ff.; psychological, 42 ff.; qualitative, 21, 28-29, 53; quantitative, 21, 27; social science, 20, 29, 38, 51, 56, 66 ff., 82 ff.; statistical, 10, 14, 17, 50 ff., 83; subjective, 23 ff.
- Mill, James, 109, 117-118
- Mill, John Stuart, 125
- Misconceptions (*see* Preconceptions), 3-19, 34-36, 76-77, 82, 91; Unseen Hand, 246 ff.
- Mitchell, Wesley C., 55-56, 87, 91, 236, 383 ff., 493
- Monetary transactions, 404 ff.
- Money, 108, 118, 122, 143, 152, 221-222, 510 ff., 520; bank deposits view of, 510 ff.; business deposits, 510 ff.; coined and paper, 405; commanded, 120, 126, 143, 151-152; easy, 464 ff., 520 ff., 531 ff.; holding of, 515 ff.; income deposits, 510 ff.; savings deposits, 510 ff.; speculative demand for, 518 ff.; transactions demand for, 518 ff.; use of, 352, 515 ff.
- Money mechanism, American, 404 ff.
- Monopoly, 105, 111, 129, 135-136, 146-147, 151-153, 190
- Monopoly gains, 202 ff.
- Monopolistic controls, 496
- Moore, Henry L., 51-52
- Mores (*see* Folkways)
- Moulton, H. G., 447 ff., 464
- Mussey, Henry R., 466
- Natural state of man, 199
- Naturalism, 198 ff.
- Nature, right and beautiful order of, 205 ff.
- Noncompeting groups, 111, 127, 135
- Normalism, 98, 143, 153, 190-192, 197 ff., 230, 235
- Normative standards (*see* Ethical ideals), 4, 74; economic, 326 ff.
- Observation, 5-7, 12, 16-17, 20-29, 32-33, 63, 71; empirical, 282; exploratory, 7;

- introspective, 25, 36; raw, 7, 26; self, 44; superficial, 36.
- Ogburn, William F., 53
- Opinion, 5
- Opportunity-lost doctrine (*see* Alternative use), 91, 122
- Organicism (*see* Analogies), 98, 236 ff., 274-276; economic, 240 ff.
- Organismic criticism, 237
- Orthodoxy (*see* Classicism), 474 ff., 477 ff., 500 ff.
- Panics, 383 ff.
- Pantaleoni, Maffeo, 210
- Pareto, Vilfredo, 60 ff., 77
- Patten, Simon N., 132, 136 ff.
- Pecuniary choice, 177
- Pecuniary concepts, 206 ff.; inversion of, 213-215, 220-221
- Pecuniary logic, 212 ff., 221
- Perry, Ralph Barton, 100, 275 ff., 280 ff., 298-301, 308, 314, 324-326
- Personality types (*see* Human nature), 46, 277, 294
- Persons, Charles E., 78-80, 97, 192-193
- Phenomena (*see* Social), biological, 10, 16; chemical, 16; physical, 16, 28; psychological, 16.
- Philosophy, modern, 22, 281 ff.
- Physics, 5, 9, 14, 26, 88, 231
- Physical science, 100
- Physiocrats, 139
- Pirenne, Henri, 57-59
- Planning, social (*see* Control)
- Plato, 22, 24, 87
- Pleasure, 79
- Political economy (*see* Economics)
- Political science, 9, 71 ff.
- Power, predatory, 111, 152
- Prall, David W., 285
- Preconceptions (*see* Misconceptions), 18, 35, 41, 76, 84, 90-91, 110-112, 471; social, 76 ff.
- Prediction (*see* Analysis, levels of), 68, 84
- Preference, 111, 226, 312 ff.
- Price(s), 91, 96 ff., 102 ff., 111, 116-118, 120-122, 150-152, 193, 217 ff., 323, 331 ff., 385, 539 ff.; able-to-pay, 106, 153-154, 179, 218, 543 ff.; and costs, 543 ff.; and utilities, 543 ff.; broader considerations, 542 ff.; competitive, 542; customary, 106, 179-180, 184, 218, 543 ff.; effective, 543 ff.; fair, 100, 106, 180, 543 ff.; general theory of, 95, 100; just, 106, 180, 359 ff., 543 ff.; market, 105-106, 151-152; measure of, 118-121, 126, 150, 154; medieval and modern, 545 ff.; monopolistic and administered, 542; natural or normal, 104-106, 109, 135, 151-152, 542; obliged-to-pay, 106, 543 ff.; retail, 352 ff.; wholesale, 351; will-ing-to-pay, 106, 168, 180, 183, 218 543 ff.
- Price determination, 108 ff., 131, 146, 149, 157, 159, 164, 219; cost theory of, 541 ff.; market, 539 ff.; utility theory of, 539 ff.
- Price economics, 119, 209
- Price fixing, 149
- Price levels, 100, 546
- Price offer, 99, 176
- Price reductions, 459 ff.
- Primitive life, 198 ff.
- Probability, 5-6, 17, 50
- Procedures (*see* Methodology)
- Production, 140, 153, 385; cost of, 104-105, 109
- Production functions, 476
- Productivity, 248
- Profits, 104, 116-118, 226-227, 428; quest for, 384, 388
- Propensities, 476, 479; to save and to hoard, 482 ff.; to consume, 479, 482 ff. 486 ff.
- Property, 111, 415
- Proportionality presumption, 172
- Prudence, 169
- Pseudo science, 14-15, 97 ff.
- Pseudoscientific method and reasoning, 87 ff., 144, 185, 231, 250
- Pseudoanalogies, mechanistic and organic fallacies, 231 ff.
- Psychology (*see* Methodology), 3, 9-17, 29, 36, 42, 55, 83, 224, 229; and modern social study, 560 ff.; modern 279 ff.
- Pufendorf, Samuel von, 231
- Purchase tendency, 99
- Purchasing power, 100, 169, 228-229, 402, 430; inequality of, 166
- Qualitative differences, 153-154
- Qualities (*see* Analysis, levels of), primary, secondary, and tertiary, 26 272, 285
- Quantities or magnitudes, 272, 304 ff.
- Quantification, 557 ff.
- Rationalism (*see* Analysis and Systems of thought), 197 ff., 224, 229-230, 288
- Rationalization (*see* Wishful thinking), 17-18, 289, 292, 484
- Realism, 282-283
- Reason, 37
- Reflexes (*see* Responses)
- Relativism, 282
- Relevance, 6
- Renan, Ernest, 59
- Responses, 284; conditioned and unconditioned, 21
- Revolutions, commercial, industrial, mechanical, 367 ff.

- Ricardo, David, 102 ff., 112 ff., 135, 140-141, 150, 478
- Rice, Stuart A., 53
- Richmond, Mary E., 72 ff.
- Robertson, D. H., 483 ff., 513 ff.
- Rowse, A. L., 466
- Ruskin, John, 130
- Sacrifices, 107, 126, 194
- Sapir, Edward, 69
- Satisfactions, 79
- Save, propensity to, 538 ff.
- Saving (*see* Sacrifice), 107, 111, 138-141, 153
- Savings, 461, 464, 476, 500 ff., 504-505; American, 401, 441, 446 ff.; automatic, 402; future, 501; good and bad use of, 407 ff.; past, 501; present, 501; productive use of, 430; redundant or excessive, 412-413, 430, 451, 455 ff.; trend of, 449; unproductive use of, 412
- Savings-investment situations, comparison between current, past, and future, 500 ff.
- Savings versus consumption, 454 ff.
- Say, Jean Baptiste, 109
- Scarcity, 103, 105, 109, 125, 129, 135-136, 145-147, 151-153, 190
- Schevill, Ferdinand, 57-59
- Schumpeter, Joseph, 467 ff., 475 ff., 486, 502, 517, 537
- Science(s), 3 ff., 74 ff., 282; accomplishments of, 112, 117; affiliations between, 8 ff.; and social study, 3 ff.; biological, 13, 18, 21; concepts of (*see*); development of, 11-13, 34 ff.; hierarchy of, 37; history of, 7, 17, 33; interdependence of, 9, 12, 34 ff.; mathematical, 13; natural, 18, 20; physical, 3, 18, 21, 25; social (*see*); structural and genetic relationship of, 8-12, 16, 71; techniques of (*see* Methodology)
- Scientific advance, modern, 365 ff.
- Scientific method (*see* Methodology), 3-7, 12 ff., 20-21, 28-29, 56, 63, 71, 87-88, 462 ff.; dual character of, 33 ff.
- Seligman, E. R. A., 189
- Sensation, 21, 24
- Senior, Nassau W., 126
- Serfdom, 346
- Slavery, 111, 345 ff.
- Short-run changes, 153, 483, 490 ff., 501
- Smith, Adam, 102-103, 107-108, 110-115, 118-121, 139, 213
- Social, causation, 58, 66 ff.; change, 11, 58; control (*see* Control); dynamics, 231; energetics, 231; institutions, 23-29, 99-100, 334 ff.; interaction, 239, 251 ff., 279; mechanics, 231; mind, 250, 279; organization, 14, 20; personality, 279
- Social phenomena (*see* Phenomena), 12, 16, 23, 89, 250 ff., 279; abnormal and normal, 11; artificial, 28-30; complexity of, 16, 19; natural, 20
- Social physics, 231, 234
- Social progress, 66, 84; the road to, 563 ff.
- Social reform, 70
- Social science, 3-20, 32, 37 ff., 40 ff., 50; basic concepts of (*see* Concepts); current tendencies in, 556 ff.; immaturity of, 19; in the making, 562 ff.; misapprehensions regarding, 15 ff.; modern, 560 ff.; normative considerations in, 559 ff.; realistic approach to, 555 ff.; relation to recognized sciences, 40 ff.; schools of, 20 ff., 27 ff.; time factor in, 558 ff.
- Social theorizing, 15, 231
- Social value, 274 ff.; objections to, 243 ff.; realistically conceived, 250 ff.
- Social work, 71 ff.
- Socialism, 112
- Society, 11-15, 238, 243; artificial creation, 20; early and rude, 110 ff., 143, 151-153; nature of, 276-277; primitive, 48-49; real, 121, 151; scientifically fabricated, 20
- Sociology, 9-17, 237
- Sorokin, Pitirim, 234, 237-238
- Specific productivity, 98, 201 ff.
- Stabilization, 100
- Standard of living, 403
- Statics, 98, 198 ff., 235
- Statistics (*see* Methodology), 23, 51-53
- Stock ownership, dispersion of, 425, 433
- Stout, G. F., 304
- Stuart, Henry W., 100, 327 ff.
- Subconscious, the, 225-226, 229, 284
- Subjective (*see* Analysis), 21, 24, 26-27, 30, 53
- Sumner, William Graham, 44 ff.
- Superorganic, the, 250
- Supply, 145, 149, 151, 164, 190 ff., 544 ff.; and demand, 475
- Surplus, 153
- Surveys, 23, 49, 55
- Systems of thought, 9, 12-14; compendent, 5, 71; empirical (*see* Empiricism), 4-9, 11-12; rational (*see* Rationalism), 4-6, 71; scientific, 13-16
- Tastes, 166
- Taussig, F. W., 106-107, 167, 192
- Taxation, 423, 480
- Taylor, Horace, 467
- Techniques (*see* Methodology), 17, 25, 36-37, 42 ff., 49
- Technological improvement, 481
- Terminology, questions of, 481 ff., 488 ff.
- Theory (*see* Analysis), 4-7, 13, 20, 24, 28-29, 32, 63
- Thomas, William I., 45-46

- Thrasher, Frederic M., 55
Thrift, policy of, 450, 479
Thurstone, Louis L., 43
Time (*see Abstinence and Waiting*), 107,
 117-118, 121, 126, 132
Titchener, E. B., 41 ff.
Torrens, Colonel R., 109, 117
Tradition, 333 ff.
Traits, 30
Trends, 100
Tribute, 111, 152, 344 ff., 359 ff.
Troeltsch, Walter, 59
Truth, 5, 284
Turner, E. R., 60
- Uncertainty (principle of), 26-27
Unconscious (*see Subconscious*)
Unemployment, 428
Unfailing mutual gain, dogma of, 221 ff.
Utility (or desire), 76 ff., 80, 96 ff., 102 ff.,
 122, 127-128, 155 ff., 166-168, 184 ff.,
 189, 192 ff., 220 ff., 288, 303, 351, 470,
 548 ff.; and price determination, 170
ff.; constant, 162, 166-168; diminishing,
157 ff., 168; economic, 78 ff.; hu-
man, 81; increasing, 160, 168; indivisi-
ble whole, 183; marginal, 82, 193; sub-
jective, 97-98, 227; summary and con-
clusions regarding, 250 ff.; total, 184
Utility curves, 159, 164 ff.
Utility-disutility dialectic, 242 ff., 482
Utility School, main contentions of, 156 ff.
- Value, 23, 29-30, 37, 76 ff., 81-82, 96 ff.,
 100 ff., 111, 118, 122, 124, 152, 157,
 224-228, 315 ff., 539 ff., 548 ff.; and
real cost, 549 ff.; and utility, 549 ff.;
absolute and relative, 272 ff.; broader
concepts of, 271-336; classes of, 322 ff.;
comparative, 298 ff.; economic and
moral aspects of, 81, 323 ff.; funda-
mentals of, 280 ff.; generic, 280 ff.;
human-interest vs. institutional aspects
of, 333 ff.; market and price aspects of,
274, 332, 335 ff.; market and progress
phases of, 550 ff.; novel and routine as-
pects of, 286, 327 ff.; paradoxes of, 127-
128; positive or absolute, 104; prestige,
182; prudential, 325 ff.; qualitatively
considered, 308 ff., 317 ff.; quantita-
tively considered, 308 ff.; relative, 104;
scarcity, 109, 126; social or human (*see*
Social value); species of, 322 ff.; various
aspects of, 322 ff.
- Value-in-exchange, 103, 109, 116, 152,
 157, 331 ff.
- Value-in-use, 103
- Value theory, 87 ff., 99, 148; continuing
confusion in, 271 ff., 279; eclectic
school, 91, 212 ff.; evolutionary school,
216 ff.; non-Euclidian school, 210 ff.;
self-interest school, 210 ff.
- Variables (*see Concepts*)
- Veblen, Thorstein, 87, 91, 197 ff., 213
ff., 236
- Vendibility, 99
- Verification (*see Observation*), 20, 29, 32,
 87, 317
- Volition, 30, 37, 58
- Voltaire, 58
- Viner, Jacob, 466, 510, 513 ff., 518
- Wages, 104, 116 ff.; reduction of, 480
- Wage units (*see Employment*)
- Waiting (*see Abstinence and Time*), 97,
 107, 132-133, 138, 145 ff., 151-152
- Want(s), 228, 236 ff.; intense, 184
- Wealth (economic), 284; American, 396
ff., 414 ff.; American corporate, 423 ff.;
concentration of in the United States,
192, 196, 420, 429; inventories of, 415 ff.
- Wealth-producing capacity, American,
421 ff.
- Weigel, Erhard, 231
- Wieser, Frederick von, 132 ff.
- Williams, James M., 64
- Wishes, 30
- Wishful thinking (*see Rationalization*)
- Wissler, Clark, 49
- Woodworth, Robert S., 43
- Worth, 228-229
- Wundt, Wilhelm, 41
- Young, Kimball, 55
- Znaniecki, Florian, 45-46